

Appendix B.1:

County Industry Cluster Snapshots

Industry Cluster Bubble Charts

In the sections below, we examine trends by Industry Cluster for each county in the Greater Charlotte Region.

We show the data using “bubble charts”, which provides an interesting perspective of both local and national dynamics. The bubble chart provides three metrics per industry cluster: forecast growth rate (2012-2017), “Location Quotient” (which is the per capita concentration in the region relative to the US), and number of jobs (the relative size of the bubble).

The location quotient (or LQ – see side bar for detailed explanation) for each industry cluster is presented on the vertical axis, which shows the relative concentration of employment in the industry versus the US concentration. For example, a LQ of 0.9 for Healthcare indicates that there are 10% fewer employees in this industry *per capita* in the region than the US average.

LQ is a relative measure, and a high concentration in one industry means that other industries will have lower LQs. Having an LQ below 1 indicates a lower concentration relative to the denser clusters.

The graphic on the following page illustrates how the bubble charts operate and the implications of cluster locations in each quadrant.

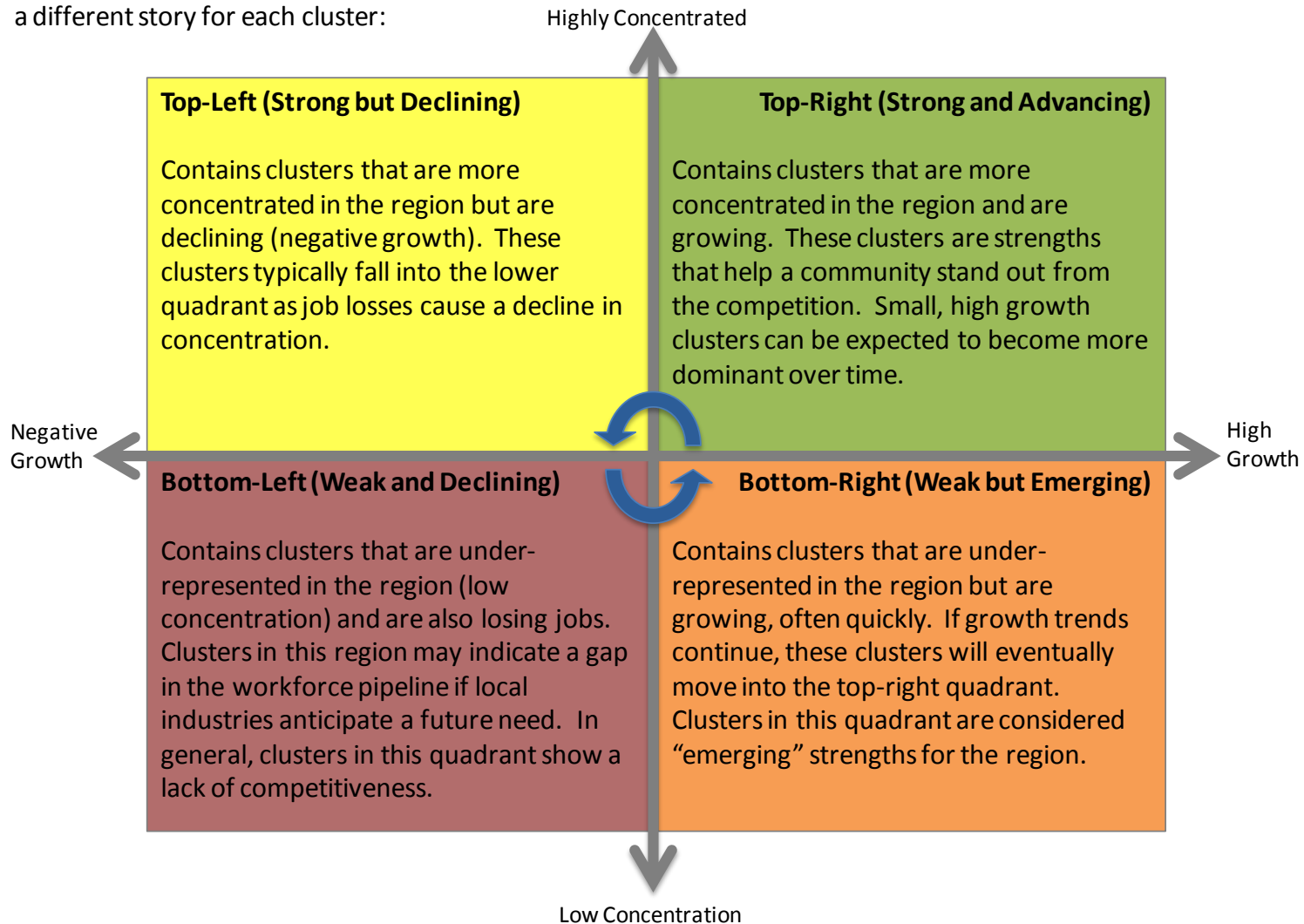
By showing the data for each individual county as well as the overall region, we can see which industry clusters are growing the fastest and where they are located. The charts were designed to be as comparable as possible (scales on the x-axis and y-axis are consistent across charts) for each county.

What is a “Location Quotient?”

This calculation, which is also called a “LQ”, is the relative concentration or density of a specific industry in the Greater Charlotte Region versus the US average for that industry. Specifically, the LQ is calculated by taking the per capita concentration of that industry in the region, divided by the same per capita concentration for the US. A 1.5 LQ indicates that the region has 50% more industry employment, on a per capita basis, than the US, which is a sign of relative local strength in that industry cluster.

Explanation of Cluster Bubble Charts

The graph's four quadrants each tell a different story for each cluster:



Private Sector Industry Clusters

ALEXANDER COUNTY, NC

Alexander County's three **largest clusters** by employment size are Furniture Manufacturing (1,800 employees), Retail (800), and Culture & Entertainment (500).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Private Education (380% growth, 60 new jobs), Logging & Metal/Mineral Mining (304% growth, 70 new jobs), and Software/Info. Tech (110% growth, 10 new jobs).

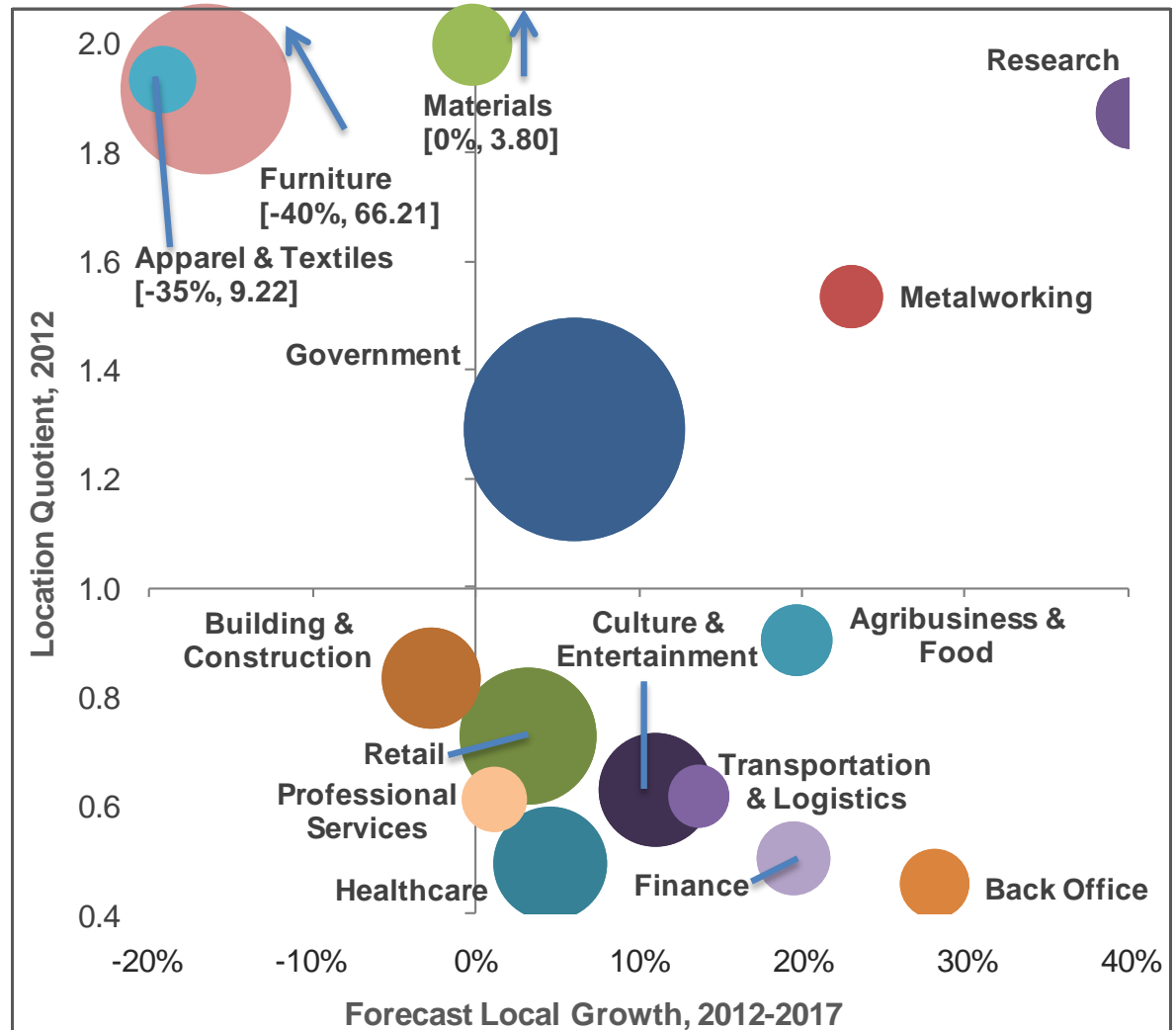
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Automotive (80% forecast growth), Research (40%), and Energy (32%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Furniture (LQ=66.21), Apparel & Textiles (9.22), and Logging & Metal/Mineral Mining (8.16). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Back Office, Finance, and Transportation & Logistics.

Declining clusters include Furniture, which employs 1,800 workers, has an LQ of 66, and lost 47% of its employment base (1,500 jobs) in the last five years. Apparel & Textiles employs 300, LQ=9, and lost 17% (60 jobs). Logging & Metal/Mineral Mining employs 97, LQ=8, and lost 304% (70 jobs).

Industry Clusters: Alexander County, NC



Source: Avalanche Consulting using data from EMSI

Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

ALEXANDER COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	0	○	0.00	0	0		0.2%
Agribusiness & Food	209	◐	0.91	(6)	41	19.6%	1.9%
Apparel & Textiles	292	●	9.22	(59)	(102)	-34.9%	-20.1%
Automotive	15	○	0.24	(24)	12	80.0%	-6.0%
Back Office	203	○	0.45	(76)	57	28.1%	8.3%
Biomedical Supplies & Labs	10	○	0.16	0	0	0.0%	8.0%
Building & Construction	406	◑	0.83	(180)	(11)	-2.7%	5.3%
Consumer Goods Mftg	10	○	0.25	(14)	(5)	-50.0%	-0.6%
Culture & Entertainment	535	◑	0.63	(173)	59	11.0%	6.2%
Education (Private)	72	○	0.44	57	23	31.9%	13.2%
Electronics	76	○	0.50	38	(6)	-7.9%	1.3%
Energy	28	○	0.30	6	9	32.1%	-1.5%
Engineering, Design, & Content	39	○	0.18	(29)	0	0.0%	2.0%
Finance	216	◑	0.50	25	42	19.4%	3.2%
Furniture	1,758	●	66.21	(1,532)	(704)	-40.0%	-3.5%
Government	2,006	◑	1.29	28	121	6.0%	4.0%
Healthcare	519	○	0.49	(127)	24	4.6%	11.8%
Industrial Machinery	30	○	0.17	0	8	26.7%	-1.2%
Logging & Metal/Mineral Mining	97	●	8.16	73	(3)	-3.1%	-2.2%
Materials	398	●	3.80	31	1	0.3%	-7.2%
Metalworking	161	◑	1.54	(30)	37	23.0%	-5.1%
Non-Profits	10	○	0.12	0	0	0.0%	6.3%
Professional Services	175	◑	0.61	(8)	2	1.1%	5.5%
Research	212	◑	1.87	58	85	40.1%	21.5%
Retail	767	◑	0.73	(53)	25	3.3%	3.3%
Shipbuilding	0	○	0.00	0	0		-6.0%
Software / Info. Tech.	21	○	0.15	11	4	19.0%	16.5%
Telecom Services	0	○	0.00	0	0		-2.0%
Transportation & Logistics	161	◑	0.62	7	22	13.7%	4.6%
Total	8,338		1.00	(2,014)	(307)	-3.7%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

ANSON COUNTY, NC

Anson County's three **largest clusters** by employment size are Retail (800 employees), Healthcare (600), and Building and Construction (500).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Furniture (44% growth, 50 new jobs), Metalworking (36% growth, 120 new jobs), and Agribusiness & Food (14% growth, 40 new jobs).

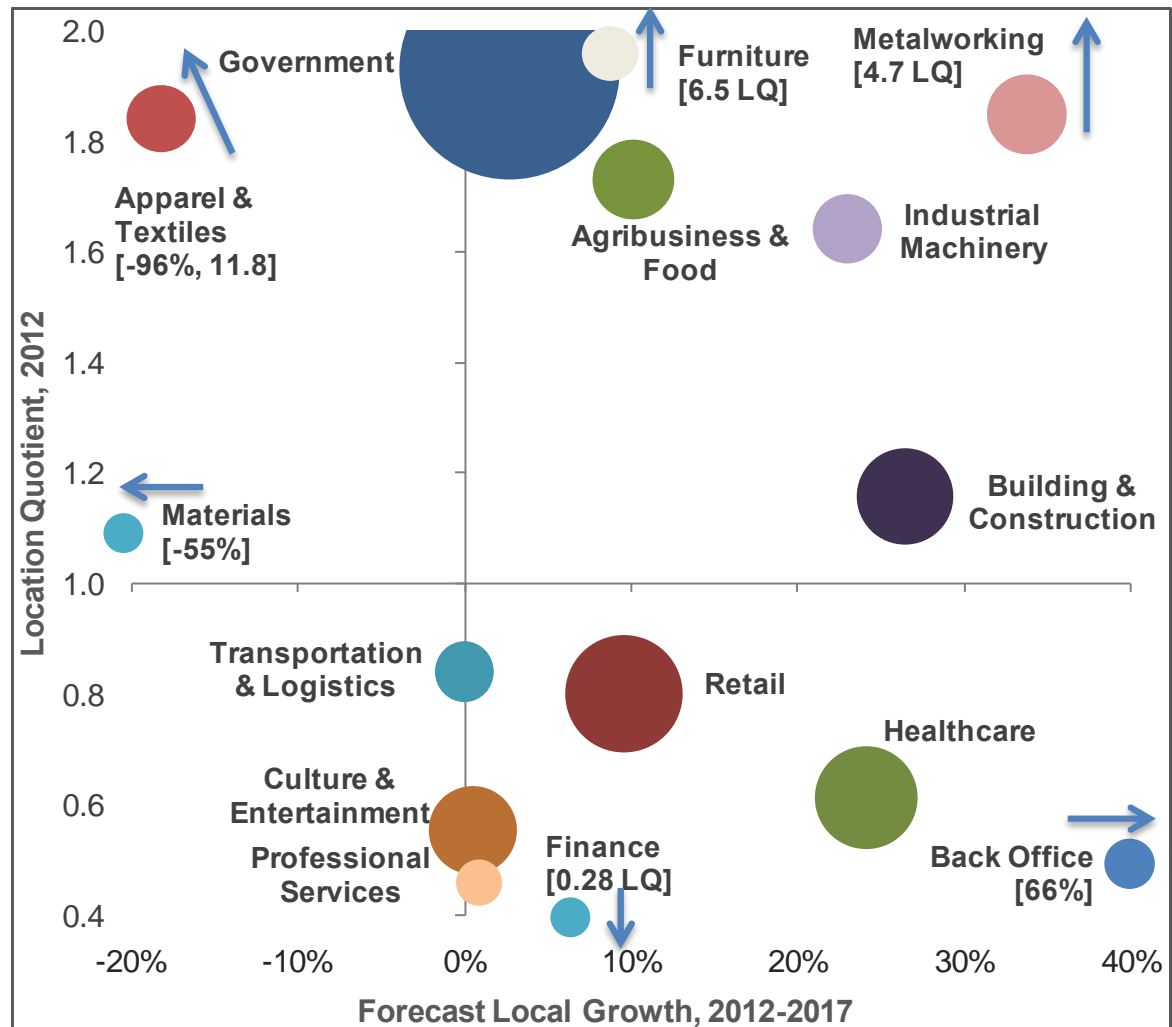
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Back Office (66% forecast growth), Education (60%), and Electronics (38%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=11.82), Logging & Metal/Mineral Mining (7.74), and Furniture (6.52). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Back Office, Healthcare, and Finance.

Declining clusters include Apparel & Textiles, which employs 340 workers, has an LQ of 11.8, and lost 37% of its employment base (200 jobs) in the last five years. Industrial Machinery employs 270 workers, LQ=1.6, and lost 42% (200 jobs). Logging & Metal/Mineral Mining employs 80 workers, LQ=7.7, and lost 46% (70 jobs).

Industry Clusters: Anson County, NC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

ANSON COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth			
			Growth	New Jobs	New Jobs	Local %	US %	
Aerospace	0	○	0.00	0	0		0.2%	
Agribusiness & Food	365	●	1.73	13.7%	44	37	10.1%	1.9%
Apparel & Textiles	342	●	11.82	-36.5%	(197)	(327)	-95.6%	-20.1%
Automotive	5	○	0.09	0.0%	0	0	0.0%	-6.0%
Back Office	231	◐	0.57	3.6%	8	152	65.8%	8.3%
Biomedical Supplies & Labs	5	○	0.09		5	0	0.0%	8.0%
Building & Construction	514	●	1.16	-10.1%	(58)	136	26.5%	5.3%
Consumer Goods Mftg	0	○	0.00	-100.0%	(5)	0		-0.6%
Culture & Entertainment	429	◐	0.55	4.9%	20	2	0.5%	6.2%
Education	10	○	0.07	100.0%	5	6	60.0%	13.2%
Electronics	40	○	0.29	48.1%	13	15	37.5%	1.3%
Energy	63	◐	0.75	-18.2%	(14)	(25)	-39.7%	-1.5%
Engineering, Design, & Content	36	○	0.18	-33.3%	(18)	1	2.8%	2.0%
Finance	110	○	0.28	-16.7%	(22)	7	6.4%	3.2%
Furniture	158	●	6.52	43.6%	48	11	7.0%	-3.5%
Government	2,738	●	1.93	-5.8%	(168)	74	2.7%	4.0%
Healthcare	588	◐	0.61	-5.8%	(36)	142	24.1%	11.8%
Industrial Machinery	269	●	1.64	-42.4%	(198)	62	23.0%	-1.2%
Logging & Metal/Mineral Mining	84	●	7.74	-45.8%	(71)	(3)	-3.6%	-2.2%
Materials	112	●	1.17	15.5%	15	(62)	-55.4%	-7.2%
Metalworking	454	●	4.74	36.3%	121	149	32.8%	-5.1%
Non-Profits	10	○	0.13	0.0%	0	0	0.0%	6.3%
Professional Services	119	○	0.46	25.3%	24	1	0.8%	5.5%
Research	10	○	0.10	0.0%	0	0	0.0%	21.5%
Retail	770	◐	0.80	-13.3%	(118)	74	9.6%	3.3%
Shipbuilding	0	○	0.00		0	0		-6.0%
Software / Info. Tech.	0	○	0.00	-100.0%	(5)	0		16.5%
Telecom Services	15	○	0.31	-37.5%	(9)	0	0.0%	-2.0%
Transportation & Logistics	200	◐	0.84	-20.6%	(52)	0	0.0%	4.6%
Total	7,612		1.00	-7.8%	(648)	425	5.6%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

CABARRUS COUNTY, NC

Cabarrus County's three **largest clusters** by employment size are Retail (11,300 employees), Culture & Entertainment (10,200), and Healthcare (4,990).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Research (16% growth, 128 new jobs), Culture & Entertainment (7.3% growth, 692 new jobs), and Education (6.6% growth, 43 new jobs).

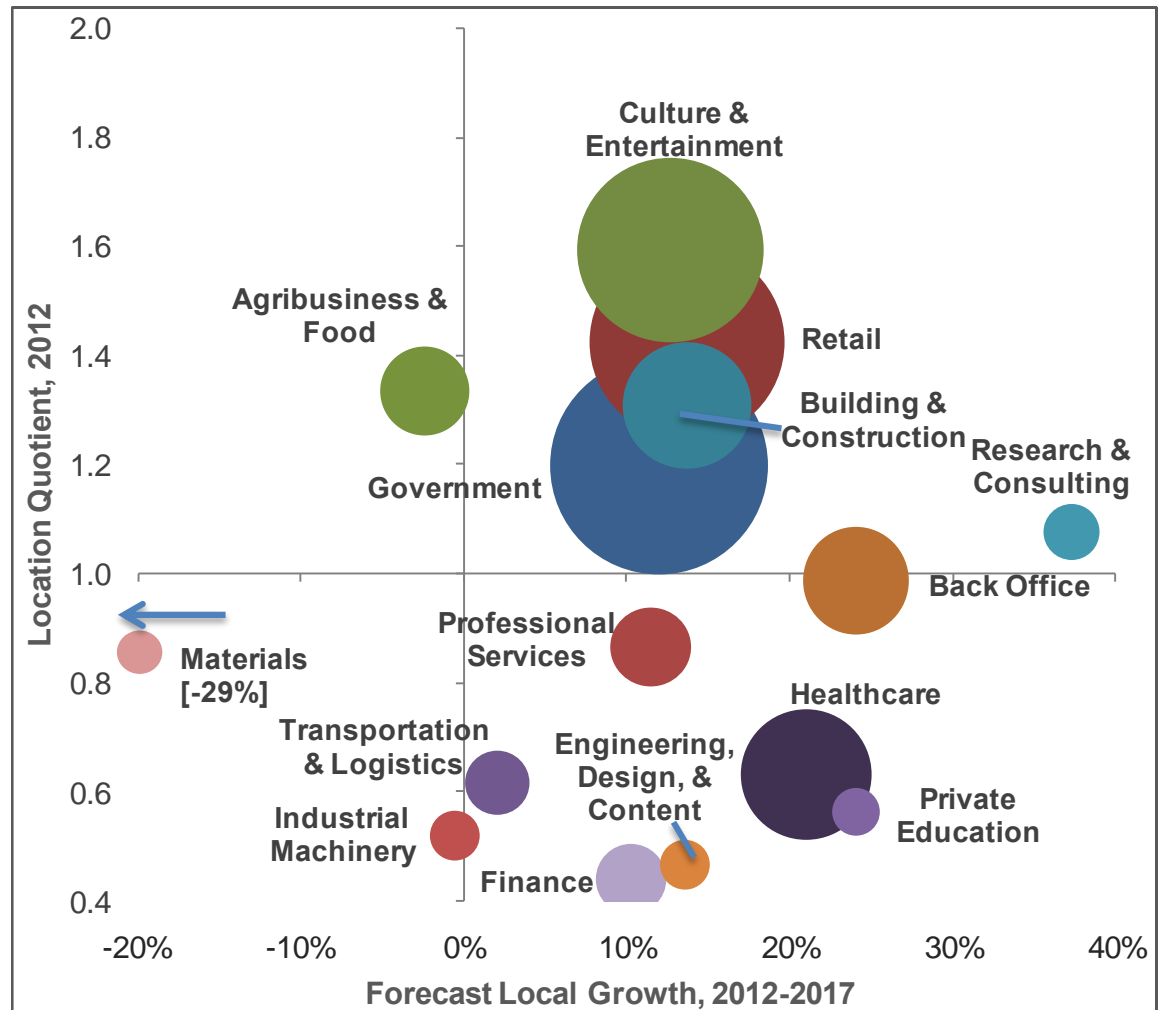
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Research (37% forecast growth), Automotive (36%), and Non-Profits (32%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=1.72), Culture & Entertainment (1.59), and Retail (1.42). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Private Education, Engineering, Design, & Content, and Finance.

Declining clusters include Building & Construction, which employs 4,800 workers, has an LQ of 1.31, and lost 30% of its employment base (2,000 jobs) in the last five years. Agribusiness & Food employs 2,300, LQ=1.34, and lost 48% (2,400 jobs). Apparel & Textiles employs 400, LQ=1.72, and lost 53% (460 jobs).

Industry Clusters: Cabarrus County, NC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

CABARRUS COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	0	○	0.00	0	0		0.2%
Agribusiness & Food	2,324	●	1.34	(2,149)	(57)	-2.5%	1.9%
Apparel & Textiles	412	●	1.72	(463)	(252)	-61.2%	-20.1%
Automotive	536	●	1.13	(132)	193	36.0%	-6.0%
Back Office	3,318	●	0.99	(153)	796	24.0%	8.3%
Biomedical Supplies & Labs	105	○	0.22	(21)	32	30.5%	8.0%
Building & Construction	4,799	●	1.31	(2,044)	655	13.6%	5.3%
Consumer Goods Mfg	401	●	1.34	(280)	(121)	-30.2%	-0.6%
Culture & Entertainment	10,207	●	1.59	692	1,290	12.6%	6.2%
Education	694	●	0.56	43	167	24.1%	13.2%
Electronics	608	●	0.53	(214)	(4)	-0.7%	1.3%
Energy	104	○	0.15	(28)	(16)	-15.4%	-1.5%
Engineering, Design, & Content	747	○	0.46	(195)	101	13.5%	2.0%
Finance	1,422	○	0.44	(39)	145	10.2%	3.2%
Furniture	85	○	0.42	(75)	(5)	-5.9%	-3.5%
Government	14,036	●	1.20	1,249	1,673	11.9%	4.0%
Healthcare	4,993	●	0.63	(84)	1,046	20.9%	11.8%
Industrial Machinery	703	●	0.52	34	(4)	-0.6%	-1.2%
Logging & Metal/Mineral Mining	57	●	0.64	(63)	(4)	-7.0%	-2.2%
Materials	705	●	0.89	(222)	(206)	-29.2%	-7.2%
Metalworking	443	●	0.56	(251)	48	10.8%	-5.1%
Non-Profits	506	●	0.80	10	161	31.8%	6.3%
Professional Services	1,861	●	0.86	(9)	213	11.4%	5.5%
Research	919	●	1.08	128	342	37.2%	21.5%
Retail	11,314	●	1.42	339	1,549	13.7%	3.3%
Shipbuilding	0	○	0.00	0	0		-6.0%
Software / Info. Tech.	245	○	0.23	(69)	59	24.1%	16.5%
Telecom Services	164	○	0.42	(178)	(76)	-46.3%	-2.0%
Transportation & Logistics	1,211	●	0.62	(236)	25	2.1%	4.6%
Total	62,863		1.00	(4,724)	7,743	12.3%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

CATAWBA COUNTY, NC

Catawba County's three **largest clusters** by employment size are Retail (10,000 employees), Healthcare (8,200), and Culture & Entertainment (7,100).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Education (37% growth, 200 new jobs), Research (57% growth, 150 new jobs), and Software/Info. Tech (55% growth, 80 new jobs).

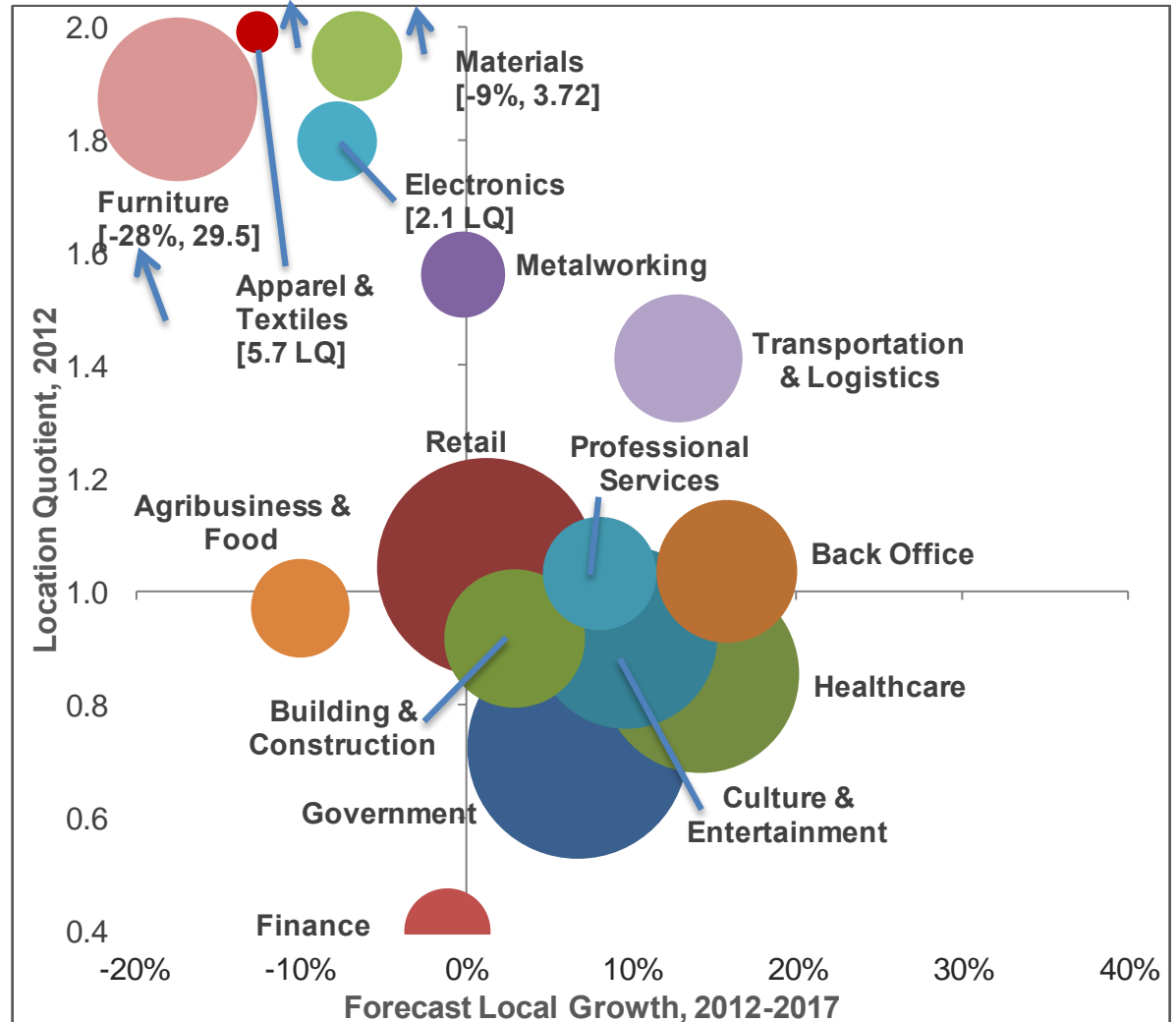
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Research (40% forecast growth), Automotive (21%), and Software/Info. Tech (17%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Furniture (LQ=29.52), Apparel & Textiles (5.66), and Materials (3.72). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Private Education, Research, and Software/Info. Tech.

Declining clusters include Furniture, which employs 7,100 workers, has an LQ of 29.52, and lost 37% of its employment base (4,200 jobs) in the last five years. Apparel & Textiles employs 2,000, LQ=5.66, and lost 55% (2,000 jobs). Retail employs 10,000, LQ=1.04, and lost 11% (1,200 jobs).

Industry Clusters: Catawba County, NC



Source: Avalanche Consulting using data from EMSI

Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

CATAWBA COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	5	0.02		5	0	0.0%	0.2%
Agribusiness & Food	2,037	0.97	-17.6%	(436)	(205)	-10.1%	1.9%
Apparel & Textiles	1,629	5.66	-55.0%	(1,991)	(190)	-11.7%	-20.1%
Automotive	915	1.60	5.5%	48	188	20.5%	-6.0%
Back Office	4,199	1.04	-7.6%	(344)	662	15.8%	8.3%
Biomedical Supplies & Labs	330	0.57	-10.6%	(39)	0	0.0%	8.0%
Building & Construction	4,049	0.92	-21.7%	(1,119)	119	2.9%	5.3%
Consumer Goods Mftg	262	0.73	-28.0%	(102)	(62)	-23.7%	-0.6%
Culture & Entertainment	7,088	0.92	-9.1%	(709)	685	9.7%	6.2%
Education	727	0.49	36.9%	196	28	3.9%	13.2%
Electronics	2,966	2.14	-24.5%	(965)	(232)	-7.8%	1.3%
Energy	400	0.48	-7.8%	(34)	(125)	-31.3%	-1.5%
Engineering, Design, & Content	899	0.46	-27.0%	(333)	53	5.9%	2.0%
Finance	1,549	0.40	-26.3%	(553)	(17)	-1.1%	3.2%
Furniture	7,124	29.52	-37.3%	(4,243)	(1,970)	-27.7%	-3.5%
Government	10,211	0.72	-3.1%	(327)	692	6.8%	4.0%
Healthcare	8,154	0.85	4.0%	316	1,160	14.2%	11.8%
Industrial Machinery	1,120	0.69	-13.6%	(176)	(69)	-6.2%	-1.2%
Logging & Metal/Mineral Mining	46	0.43	0.0%	0	(4)	-8.7%	-2.2%
Materials	3,541	3.72	-16.2%	(687)	(310)	-8.8%	-7.2%
Metalworking	1,488	1.56	-16.0%	(283)	(2)	-0.1%	-5.1%
Non-Profits	201	0.26	-53.3%	(229)	(17)	-8.5%	6.3%
Professional Services	2,679	1.03	6.0%	151	217	8.1%	5.5%
Research	401	0.39	56.6%	145	160	39.9%	21.5%
Retail	10,001	1.04	-10.6%	(1,187)	117	1.2%	3.3%
Shipbuilding	0	0.00		0	0		-6.0%
Software / Info. Tech.	211	0.16	55.1%	75	36	17.1%	16.5%
Telecom Services	247	0.52	0.8%	2	(32)	-13.0%	-2.0%
Transportation & Logistics	3,353	1.41	-9.1%	(336)	430	12.8%	4.6%
Total	75,769	1.00	-15.0%	(13,371)	1,291	1.7%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

CLEVELAND COUNTY, NC

Cleveland County's three **largest clusters** by employment size are Healthcare (5,400 employees), Retail (4,000), and Culture & Entertainment (2,500).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Transportation & Logistics (49% growth, 700 new jobs), Private Education (16% growth, 100 new jobs), and Research (31% growth, 50 new jobs).

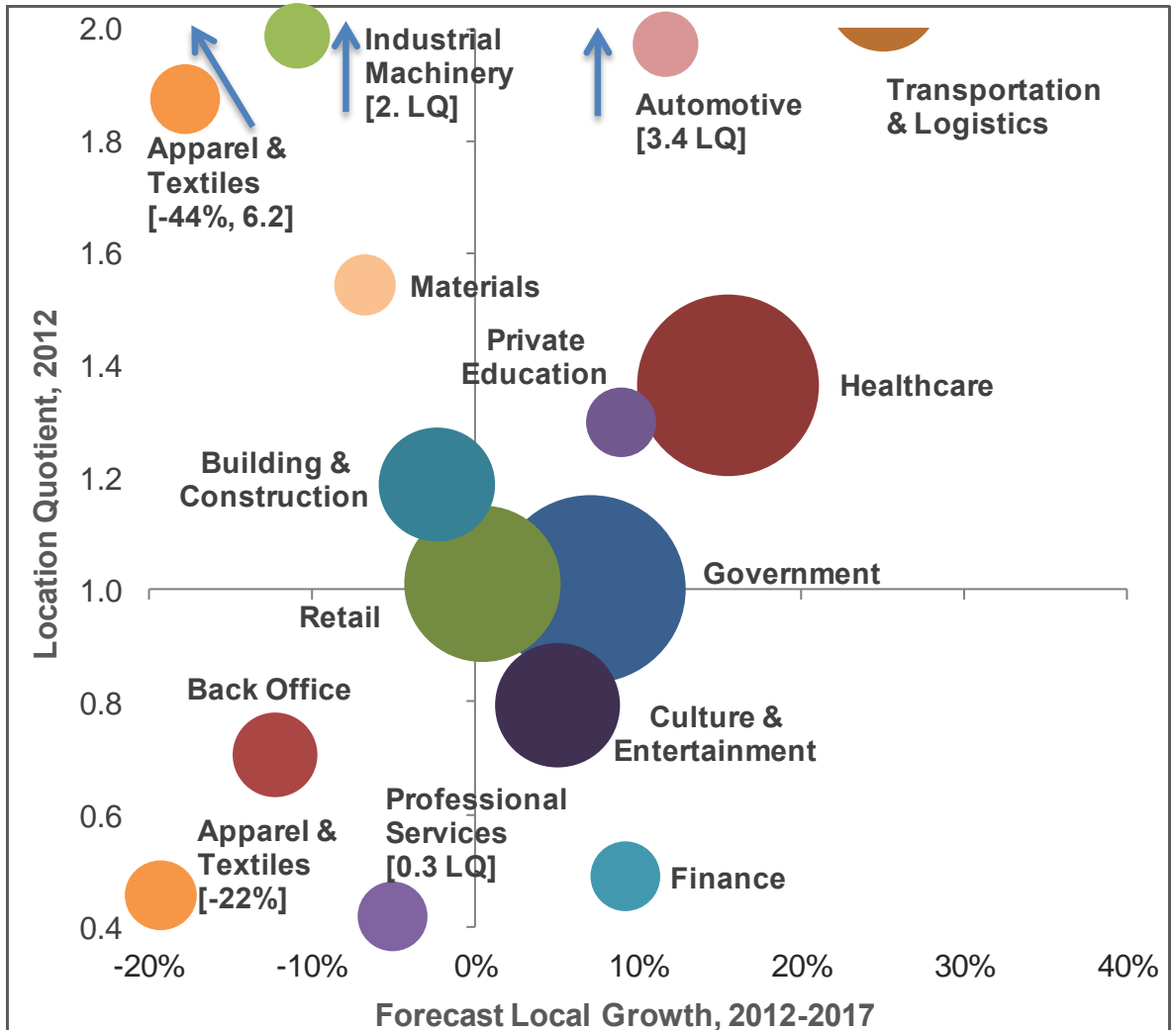
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Furniture (73% forecast growth), Research (38%), and Software/Info. Tech (30%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=6.17), Automotive (3.42), and Aerospace (2.47). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Software/Info. Tech, Biomedical Supplies & Labs, and Research.

Declining clusters include Building & Construction, which employs 2,200 workers, has an LQ of 1.19, and lost 22% of its employment base (600 jobs) in the last five years. Industrial Machinery employs 1,400, LQ=2.09, and lost 27% (500 jobs). Back Office employs 1,200, LQ=0.71, and lost 25% (400 jobs).

Industry Clusters: Cleveland County, NC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

CLEVELAND COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	281	● 2.47	-30.6%	(124)	(93)	-33.1%	0.2%
Agribusiness & Food	337	○ 0.39	-2.0%	(7)	(18)	-5.3%	1.9%
Apparel & Textiles	734	● 6.17	-34.6%	(388)	(322)	-43.9%	-20.1%
Automotive	808	● 3.42	-30.3%	(352)	102	12.6%	-6.0%
Back Office	1,182	◐ 0.71	-25.0%	(393)	(146)	-12.4%	8.3%
Biomedical Supplies & Labs	93	○ 0.39	32.9%	23	13	14.0%	8.0%
Building & Construction	2,169	● 1.19	-21.9%	(607)	(51)	-2.4%	5.3%
Consumer Goods Mfg	29	○ 0.20	-75.2%	(88)	(10)	-34.5%	-0.6%
Culture & Entertainment	2,537	◐ 0.80	-5.0%	(133)	127	5.0%	6.2%
Education	797	● 1.30	15.5%	107	71	8.9%	13.2%
Electronics	243	○ 0.42	-56.8%	(319)	(58)	-23.9%	1.3%
Energy	93	○ 0.27	-44.6%	(75)	(50)	-53.8%	-1.5%
Engineering, Design, & Content	386	○ 0.48	-30.8%	(172)	(86)	-22.3%	2.0%
Finance	791	○ 0.49	0.3%	2	73	9.2%	3.2%
Furniture	246	● 2.47	-19.9%	(61)	179	72.8%	-3.5%
Government	5,833	◐ 1.00	-5.7%	(354)	413	7.1%	4.0%
Healthcare	5,386	● 1.36	-2.2%	(122)	837	15.5%	11.8%
Industrial Machinery	1,408	● 2.09	-27.0%	(520)	(138)	-9.8%	-1.2%
Logging & Metal/Mineral Mining	84	● 1.88	-19.2%	(20)	13	15.5%	-2.2%
Materials	606	● 1.54	-26.8%	(222)	(41)	-6.8%	-7.2%
Metalworking	331	◐ 0.84	3.4%	11	66	19.9%	-5.1%
Non-Profits	288	◐ 0.92	12.5%	32	31	10.8%	6.3%
Professional Services	363	○ 0.34	12.7%	41	(20)	-5.5%	5.5%
Research	201	○ 0.47	30.5%	47	76	37.8%	21.5%
Retail	3,999	◐ 1.01	-4.8%	(202)	18	0.5%	3.3%
Shipbuilding	5	○ 0.17	-76.2%	(16)	0	0.0%	-6.0%
Software / Info. Tech.	71	○ 0.13	173.1%	45	21	29.6%	16.5%
Telecom Services	22	○ 0.11	-45.0%	(18)	(12)	-54.5%	-2.0%
Transportation & Logistics	2,017	● 2.06	48.6%	660	506	25.1%	4.6%
Total	31,290	1.00	-9.6%	(3,332)	1,445	4.6%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

GASTON COUNTY, NC

Gaston County's three **largest clusters** by employment size are Healthcare (11,000 employees), Retail (10,000), and Culture & Entertainment (6,400).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Back Office (19% growth, 700 new jobs), Research (54% growth, 170 new jobs), and Biomedical Supplies & Labs (69% growth, 100 new jobs).

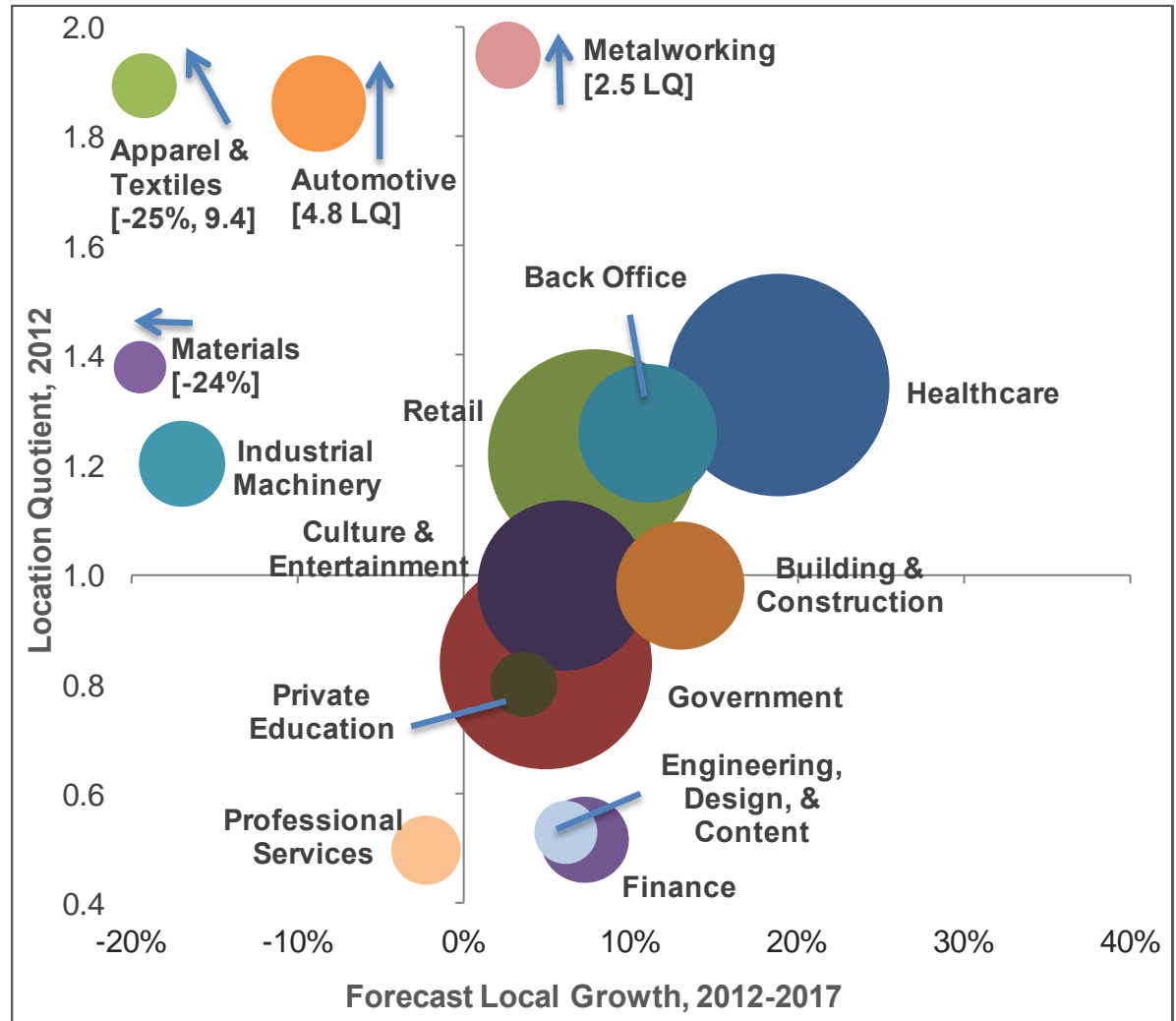
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Research (51% forecast growth), Biomedical Supplies & Labs (41%), and Healthcare (19%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=9.42), Automotive (4.82), and Metalworking (2.45). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Research, Biomedical Supplies & Labs, and Telecom Services.

Declining clusters include Automotive, which employs 2,350 workers, has an LQ of 1.19, and lost 45% of its employment base (1,950 jobs) in the last five years. Apparel & Textiles employs 2,310, LQ=9.42, and lost 45% (1,910 jobs). Building & Construction employs 3,680, LQ=0.98, and lost 24% (1,160 jobs).

Industry Clusters: Gaston County, NC



Source: Avalanche Consulting using data from EMSI

Industry Cluster Competitiveness

GASTON COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth			
			Growth	New Jobs	New Jobs	Local %	US %	
Aerospace	17	○	0.07	-54.1%	(20)	(12)	-70.6%	0.2%
Agribusiness & Food	636	○	0.36	-4.6%	(31)	(59)	-9.3%	1.9%
Apparel & Textiles	2,309	●	9.42	-45.2%	(1,907)	(571)	-24.7%	-20.1%
Automotive	2,346	●	4.82	-45.3%	(1,945)	(256)	-10.9%	-6.0%
Back Office	4,340	●	1.26	19.4%	705	478	11.0%	8.3%
Biomedical Supplies & Labs	233	○	0.47	68.8%	95	96	41.2%	8.0%
Building & Construction	3,681	◐	0.98	-23.9%	(1,158)	477	13.0%	5.3%
Consumer Goods Mftg	490	●	1.60	-6.8%	(36)	(21)	-4.3%	-0.6%
Culture & Entertainment	6,436	◐	0.98	2.3%	145	381	5.9%	6.2%
Education	1,011	◐	0.80	40.0%	289	36	3.6%	13.2%
Electronics	355	○	0.30	-28.9%	(144)	(14)	-3.9%	1.3%
Energy	606	◐	0.85	-16.2%	(117)	(112)	-18.5%	-1.5%
Engineering, Design, & Content	870	◐	0.53	-8.3%	(79)	53	6.1%	2.0%
Finance	1,713	◐	0.51	-6.4%	(118)	124	7.2%	3.2%
Furniture	573	●	2.79	-41.3%	(403)	(47)	-8.2%	-3.5%
Government	10,088	◐	0.84	0.2%	21	500	5.0%	4.0%
Healthcare	10,950	●	1.35	3.9%	406	2,065	18.9%	11.8%
Industrial Machinery	1,668	●	1.20	-24.0%	(528)	(282)	-16.9%	-1.2%
Logging & Metal/Mineral Mining	10	○	0.11	-79.6%	(39)	0	0.0%	-2.2%
Materials	1,125	●	1.39	-7.7%	(94)	(267)	-23.7%	-7.2%
Metalworking	1,990	●	2.45	-11.8%	(266)	13	0.7%	-5.1%
Non-Profits	561	◐	0.87	-4.3%	(25)	44	7.8%	6.3%
Professional Services	1,097	○	0.50	-1.0%	(11)	(25)	-2.3%	5.5%
Research	478	◐	0.55	54.2%	168	245	51.3%	21.5%
Retail	9,948	●	1.22	-3.4%	(355)	774	7.8%	3.3%
Shipbuilding	0	○	0.00		0	0		-6.0%
Software / Info. Tech.	102	○	0.09	-22.1%	(29)	10	9.8%	16.5%
Telecom Services	238	◐	0.59	30.8%	56	(17)	-7.1%	-2.0%
Transportation & Logistics	723	○	0.36	-41.0%	(503)	73	10.1%	4.6%
Total	64,501		1.00	-8.8%	(6,217)	3,668	5.7%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

IREDELL COUNTY, NC

Iredell County's three **largest clusters** by employment size are Retail (8,700 employees), Culture & Entertainment (8,300), and Healthcare (7,300).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Professional Services (55% growth, 1,700 new jobs), Back Office (13% growth, 400 new jobs), and Energy (53% growth, 120 new jobs).

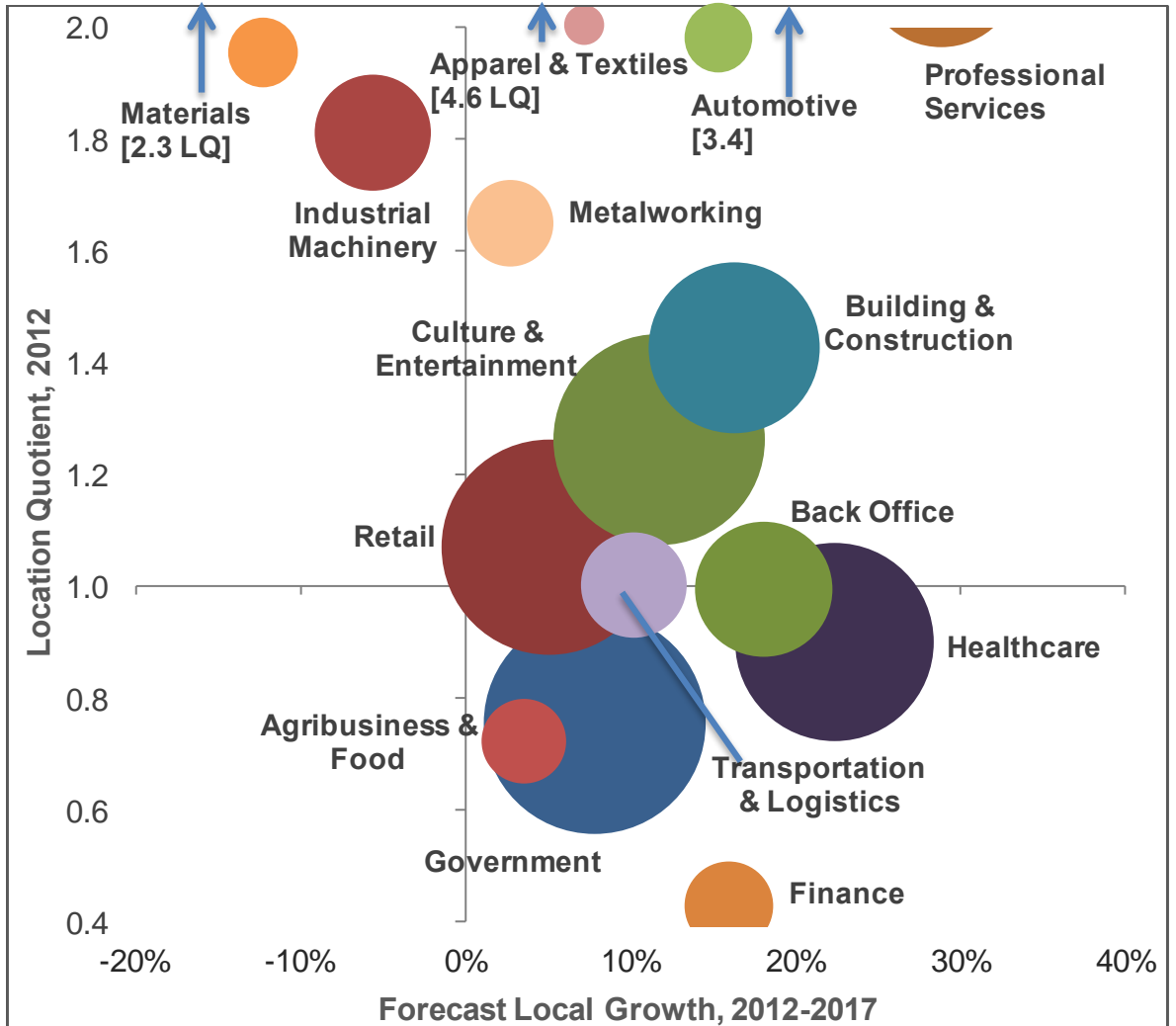
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Telecom Services (38% forecast growth), Logging & Metal/Mineral Mining (33%), and Professional Services (29%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=4.57), Automotive (3.38), and Materials (2.32). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Software/ Info. Tech, Energy, and Private Education.

Declining clusters include Building & Construction, which employs 5,400 workers, has an LQ of 1.43, and lost 23% of its employment base (1,600 jobs) in the last five years. Furniture employs 200, LQ=0.87, and lost 62% (300 jobs). Non-Profits employ 200, LQ=0.37, and lost 52% (260 jobs).

Industry Clusters: Iredell County, NC



Source: Avalanche Consulting using data from EMSI

Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

IREDELL COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth			
			Growth	New Jobs	New Jobs	Local %	US %	
Aerospace	5	○	0.02	-82.8%	(24)	0	0.0%	0.2%
Agribusiness & Food	1,285	◐	0.72	6.8%	82	46	3.6%	1.9%
Apparel & Textiles	1,115	●	4.57	-41.3%	(784)	141	12.6%	-20.1%
Automotive	1,639	●	3.38	-4.0%	(68)	232	14.2%	-6.0%
Back Office	3,420	◐	1.00	13.2%	400	620	18.1%	8.3%
Biomedical Supplies & Labs	302	◐	0.61	-0.7%	(2)	(25)	-8.3%	8.0%
Building & Construction	5,348	◐	1.43	-22.6%	(1,563)	874	16.3%	5.3%
Consumer Goods Mfg	403	◐	1.32	-20.4%	(103)	43	10.7%	-0.6%
Culture & Entertainment	8,262	◐	1.26	-1.9%	(162)	969	11.7%	6.2%
Education	628	○	0.50	31.9%	152	105	16.7%	13.2%
Electronics	718	◐	0.61	-5.5%	(42)	62	8.6%	1.3%
Energy	343	○	0.48	53.1%	119	75	21.9%	-1.5%
Engineering, Design, & Content	756	○	0.46	9.4%	65	97	12.8%	2.0%
Finance	1,414	○	0.43	-2.2%	(32)	226	16.0%	3.2%
Furniture	178	◐	0.87	-62.2%	(293)	(108)	-60.7%	-3.5%
Government	9,017	◐	0.75	-2.2%	(206)	705	7.8%	4.0%
Healthcare	7,288	◐	0.90	7.3%	497	1,636	22.4%	11.8%
Industrial Machinery	2,508	◐	1.81	-19.3%	(598)	(142)	-5.7%	-1.2%
Logging & Metal/Mineral Mining	70	◐	0.76	-7.9%	(6)	23	32.9%	-2.2%
Materials	1,872	●	2.32	-24.4%	(603)	(187)	-10.0%	-7.2%
Metalworking	1,332	◐	1.65	-27.6%	(509)	36	2.7%	-5.1%
Non-Profits	238	○	0.37	-52.3%	(261)	(17)	-7.1%	6.3%
Professional Services	4,641	●	2.11	55.4%	1,654	1,340	28.9%	5.5%
Research	353	○	0.40	-25.8%	(123)	71	20.1%	21.5%
Retail	8,686	◐	1.07	-3.1%	(281)	441	5.1%	3.3%
Shipbuilding	5	○	0.08	0.0%	0	(5)	-100.0%	-6.0%
Software / Info. Tech.	218	○	0.20	34.6%	56	50	22.9%	16.5%
Telecom Services	191	○	0.47	6.1%	11	72	37.7%	-2.0%
Transportation & Logistics	2,016	◐	1.00	2.5%	49	206	10.2%	4.6%
Total	64,209		1.00	-4.3%	(2,914)	7,534	11.7%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

LINCOLN COUNTY, NC

Lincoln County's three **largest clusters** by employment size are Retail (2,900 employees), Building & Construction (2,200), and Culture & Entertainment (2,200).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Research (263% growth, 100 new jobs), Agribusiness & Food (74% growth, 90 new jobs), and Software/Info. Tech (19% growth, 30 new jobs).

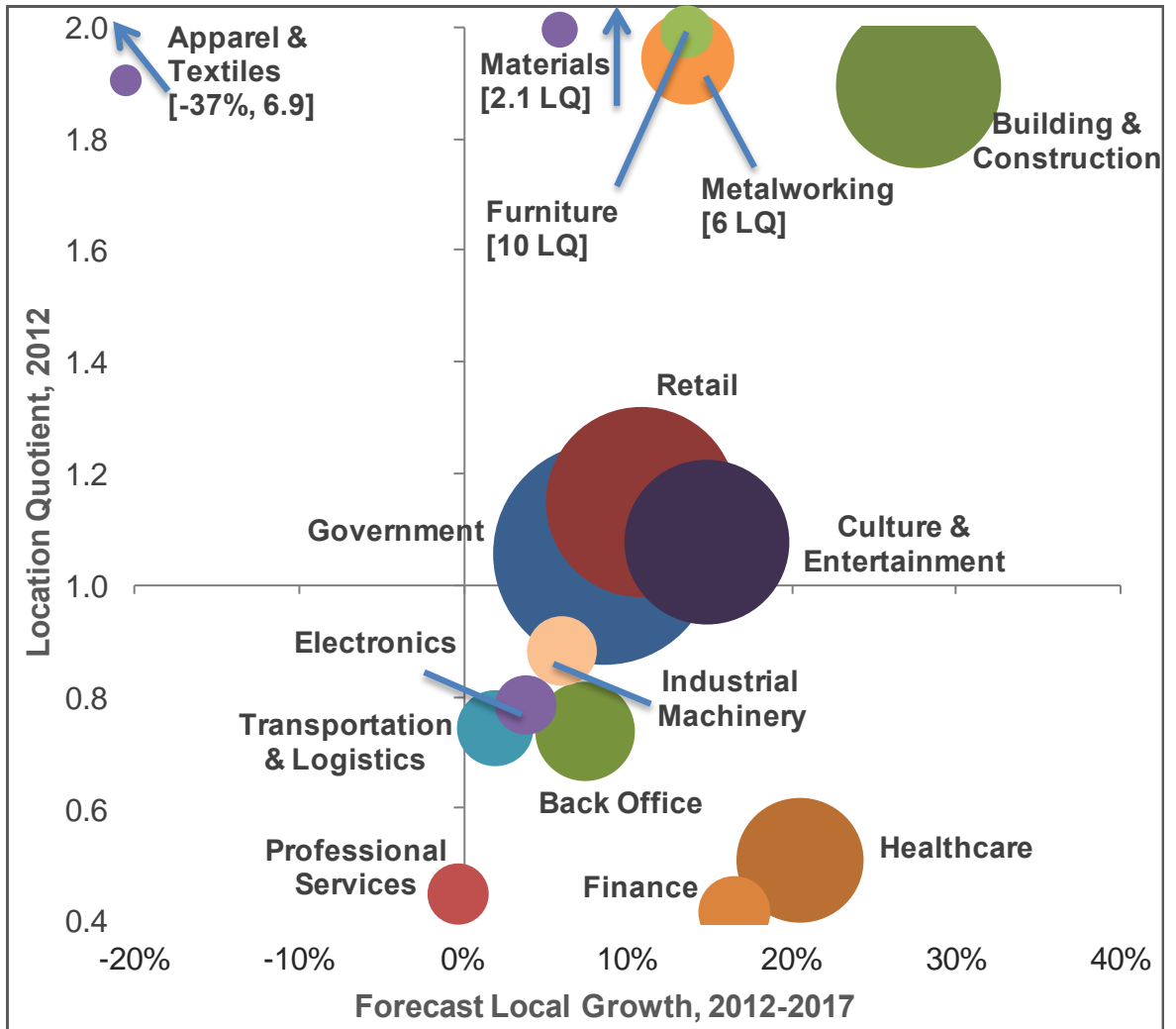
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Automotive (74% forecast growth), Research (42%), and Non-Profits (35%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Furniture (LQ=10.74), Apparel & Textiles (6.90), and Metalworking (6.08). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Research, Software/Info. Tech, and Agribusiness/Food.

Declining clusters include Building & Construction, which employs 2,200 workers, has an LQ of 1.89, and lost 33% of its employment base (1,100 jobs) in the last five years. Furniture employs 700, LQ=10.74, and lost 50% (700 jobs). Apparel & Textiles employs 500, LQ=6.90, and lost 53% (600 jobs).

Industry Clusters: Lincoln County, NC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

LINCOLN COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	0	○	0.00	0	0		0.2%
Agribusiness & Food	204	○	0.37	87	45	22.1%	1.9%
Apparel & Textiles	529	●	6.90	(594)	(198)	-37.4%	-20.1%
Automotive	237	●	1.56	77	176	74.3%	-6.0%
Back Office	798	◐	0.74	(300)	59	7.4%	8.3%
Biomedical Supplies & Labs	244	●	1.57	26	76	31.1%	8.0%
Building & Construction	2,232	●	1.89	(1,087)	618	27.7%	5.3%
Consumer Goods Mftg	39	○	0.41	1	7	17.9%	-0.6%
Culture & Entertainment	2,214	◐	1.08	248	329	14.9%	6.2%
Education	228	◐	0.58	79	53	23.2%	13.2%
Electronics	290	◐	0.79	69	11	3.8%	1.3%
Energy	75	○	0.34	(80)	(12)	-16.0%	-1.5%
Engineering, Design, & Content	197	○	0.38	(73)	39	19.8%	2.0%
Finance	431	○	0.41	(91)	71	16.5%	3.2%
Furniture	690	●	10.74	(693)	103	14.9%	-3.5%
Government	3,970	◐	1.06	(5)	340	8.6%	4.0%
Healthcare	1,290	◐	0.51	135	264	20.5%	11.8%
Industrial Machinery	383	◐	0.88	(120)	23	6.0%	-1.2%
Logging & Metal/Mineral Mining	71	●	2.47	10	7	9.9%	-2.2%
Materials	542	●	2.14	127	30	5.5%	-7.2%
Metalworking	1,543	●	6.08	(538)	238	15.4%	-5.1%
Non-Profits	37	○	0.18	(98)	13	35.1%	6.3%
Professional Services	309	○	0.45	15	(1)	-0.3%	5.5%
Research	156	◐	0.57	113	65	41.7%	21.5%
Retail	2,929	●	1.15	277	317	10.8%	3.3%
Shipbuilding	5	○	0.26	5	0	0.0%	-6.0%
Software / Info. Tech.	57	○	0.17	31	10	17.5%	16.5%
Telecom Services	67	◐	0.53	2	20	29.9%	-2.0%
Transportation & Logistics	469	◐	0.74	(121)	9	1.9%	4.6%
Total	20,182		1.00	(2,634)	2,683	13.3%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

MECKLENBURG COUNTY, NC

Mecklenburg County's three **largest clusters** by employment size are Retail (62,400 employees), Culture & Entertainment (62,000), and Finance (56,700).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Healthcare (20% growth, 7,500 new jobs), Culture & Entertainment (12% growth, 6,600 new jobs), and Research (26% growth, 2,200 new jobs).

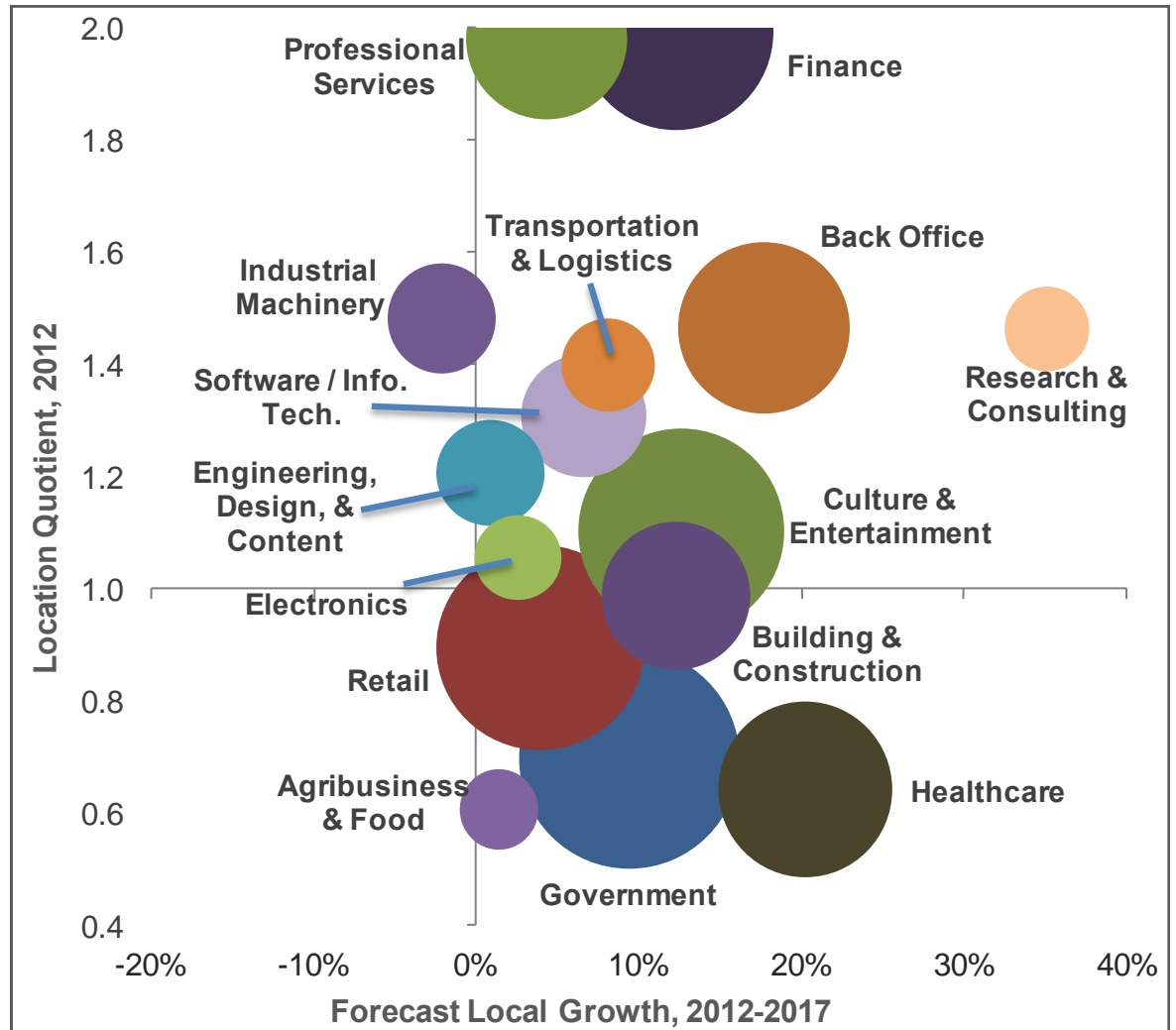
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Research (35% forecast growth), Biomedical Supplies & Labs (21%), and Healthcare (20%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Finance (LQ=1.99), Professional Services (1.98), and Industrial Machinery (1.48). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Aerospace, Biomedical Supplies & Labs, and Private Education.

Declining clusters include Building & Construction, which employs 31,800 workers, has an LQ of 0.99, and lost 33% of its employment base (15,400 jobs) in the last five years. Retail employs 62,400, LQ=0.89, and lost 8% (5,400 jobs). Finance employs 56,700, LQ=1.99, and lost 8% (4,600 jobs).

Industry Clusters: Mecklenburg County, NC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

MECKLENBURG COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth			
			Growth	New Jobs	New Jobs	Local %	US %	
Aerospace	179	○	0.09	32.6%	44	7	3.9%	0.2%
Agribusiness & Food	9,246	◐	0.61	-8.5%	(859)	126	1.4%	1.9%
Apparel & Textiles	2,101	◑	1.00	-12.4%	(297)	(386)	-18.4%	-20.1%
Automotive	1,950	○	0.47	-11.6%	(257)	(131)	-6.7%	-6.0%
Back Office	43,296	◑	1.47	-3.1%	(1,384)	7,645	17.7%	8.3%
Biomedical Supplies & Labs	2,627	◐	0.62	14.4%	330	540	20.6%	8.0%
Building & Construction	31,825	◑	0.99	-32.7%	(15,436)	3,918	12.3%	5.3%
Consumer Goods Mftg	1,955	◐	0.75	-11.3%	(250)	139	7.1%	-0.6%
Culture & Entertainment	61,963	◑	1.10	11.8%	6,553	7,788	12.6%	6.2%
Education	8,932	◐	0.83	28.8%	1,996	1,210	13.5%	13.2%
Electronics	10,657	◑	1.06	-3.1%	(338)	275	2.6%	1.3%
Energy	2,569	○	0.42	-16.5%	(509)	(546)	-21.3%	-1.5%
Engineering, Design, & Content	17,037	◑	1.21	-18.3%	(3,828)	143	0.8%	2.0%
Finance	56,731	◑	1.99	-7.5%	(4,584)	6,960	12.3%	3.2%
Furniture	1,519	◐	0.86	0.5%	8	254	16.7%	-3.5%
Government	71,677	◐	0.70	8.9%	5,848	6,746	9.4%	4.0%
Healthcare	44,690	◐	0.64	20.2%	7,519	9,051	20.3%	11.8%
Industrial Machinery	17,603	◑	1.48	-3.5%	(643)	(373)	-2.1%	-1.2%
Logging & Metal/Mineral Mining	215	○	0.27	-29.0%	(88)	13	6.0%	-2.2%
Materials	7,652	◑	1.10	-17.7%	(1,642)	(967)	-12.6%	-7.2%
Metalworking	3,466	○	0.50	-22.3%	(993)	(397)	-11.5%	-5.1%
Non-Profits	2,695	○	0.49	-47.4%	(2,431)	154	5.7%	6.3%
Professional Services	37,472	◑	1.98	3.2%	1,160	1,613	4.3%	5.5%
Research	10,963	◑	1.46	25.5%	2,231	3,846	35.1%	21.5%
Retail	62,409	◐	0.89	-7.9%	(5,374)	2,467	4.0%	3.3%
Shipbuilding	0	○	0.00		0	0		-6.0%
Software / Info. Tech.	13,074	◑	1.40	8.0%	969	1,063	8.1%	16.5%
Telecom Services	4,648	◑	1.34	-6.0%	(299)	(487)	-10.5%	-2.0%
Transportation & Logistics	22,605	◑	1.31	-12.7%	(3,303)	1,501	6.6%	4.6%
Total	551,707		1.00	-3.2%	(18,316)	52,150	9.5%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

ROWAN COUNTY, NC

Rowan County's three **largest clusters** by employment size are Healthcare (5,400 employees), Retail (4,600), and Culture & Entertainment (4,000).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Biomedical Supplies & Labs (265% growth, 100 new jobs), Engineering, Design, & Content (12% growth, 60 new jobs), and Telecom Services (17% growth, 10 new jobs).

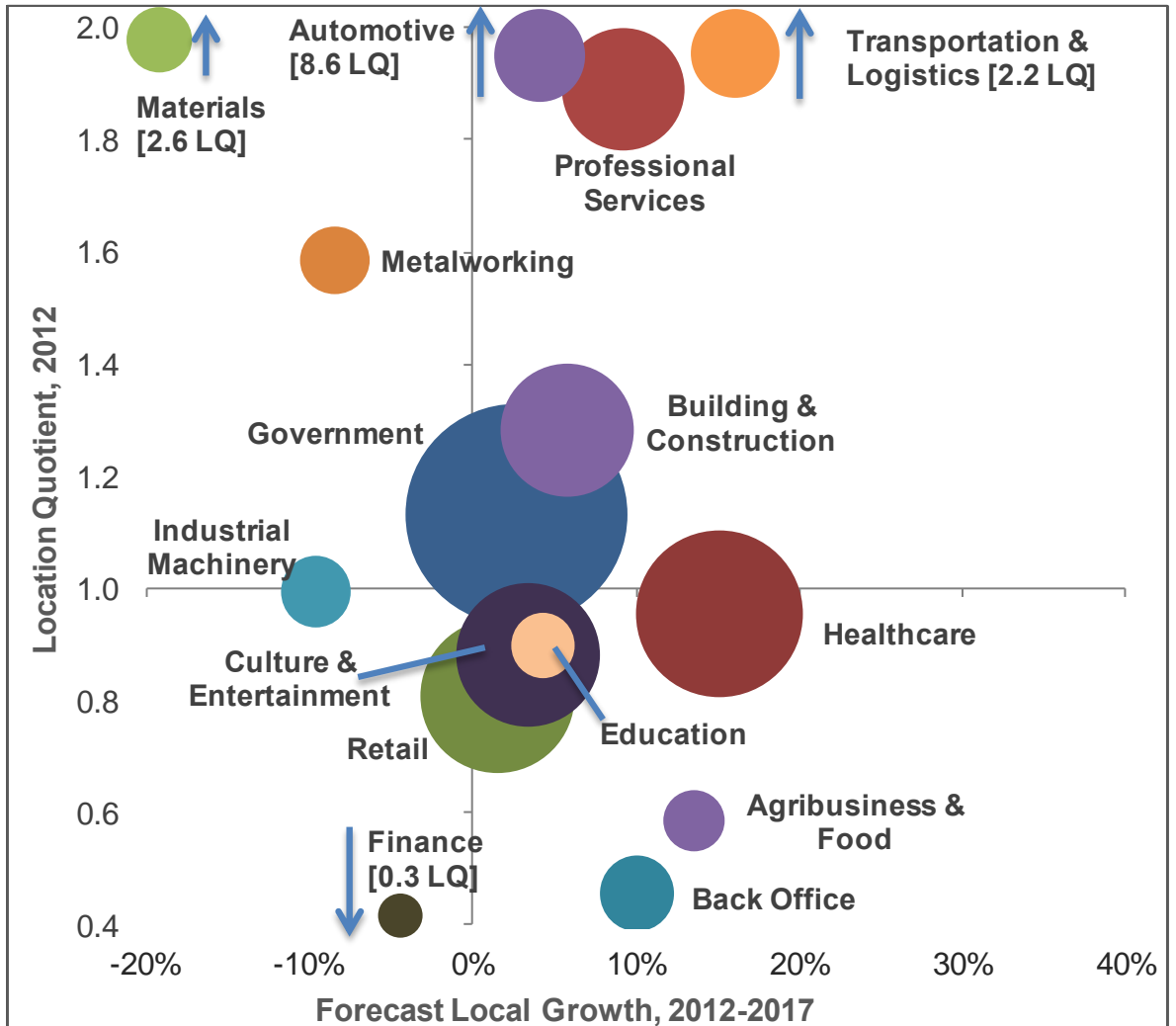
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Telecom Services (38% forecast growth), Biomedical Supplies & Labs (30%), and Non-Profits (22%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Automotive (LQ=8.64), Logging & Metal/Mineral Mining (3.12), and Materials (2.59). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Biomedical Supplies, Telecom Services, and Engineering.

Declining clusters include Building & Construction, which employs 3,400 workers, has an LQ of 1.28, and lost 30% of its employment base (1,400 jobs) in the last five years. Retail employs 4,600, LQ=0.81, and lost 8% (400 jobs). Materials employs 1,500, LQ=2.59, and lost 19% (400 jobs).

Industry Clusters: Rowan County, NC



Source: Avalanche Consulting using data from EMSI

Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

ROWAN COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	5	○	0.03	5	0	0.0%	0.2%
Agribusiness & Food	728	◐	0.59	(203)	99	13.6%	1.9%
Apparel & Textiles	355	●	2.08	(314)	(123)	-34.6%	-20.1%
Automotive	2,927	●	8.64	(288)	132	4.5%	-6.0%
Back Office	1,095	○	0.46	(107)	110	10.0%	8.3%
Biomedical Supplies & Labs	135	○	0.39	264.9%	98	29.6%	8.0%
Building & Construction	3,362	◐	1.28	(1,405)	193	5.7%	5.3%
Consumer Goods Mftg	152	◐	0.71	(200)	(10)	-6.6%	-0.6%
Culture & Entertainment	4,029	◐	0.88	4.2%	136	3.4%	6.2%
Education	791	◐	0.90	8.4%	34	4.3%	13.2%
Electronics	325	○	0.40	(82)	(44)	-13.5%	1.3%
Energy	277	◐	0.56	(33)	18	6.5%	-1.5%
Engineering, Design, & Content	567	○	0.49	11.8%	62	10.9%	2.0%
Finance	757	○	0.33	(158)	(23)	-3.0%	3.2%
Furniture	121	◐	0.85	(290)	(31)	-25.6%	-3.5%
Government	9,468	◐	1.13	2.7%	248	2.6%	4.0%
Healthcare	5,409	◐	0.95	3.8%	816	15.1%	11.8%
Industrial Machinery	961	◐	0.99	(5)	(93)	-9.7%	-1.2%
Logging & Metal/Mineral Mining	200	●	3.12	(80)	(51)	-25.5%	-2.2%
Materials	1,461	●	2.59	(349)	(247)	-16.9%	-7.2%
Metalworking	895	◐	1.58	10.1%	82	-8.5%	-5.1%
Non-Profits	205	○	0.46	(312)	44	21.5%	6.3%
Professional Services	2,911	◐	1.89	(24)	268	9.2%	5.5%
Research	79	○	0.13	3.9%	10	12.7%	21.5%
Retail	4,584	◐	0.81	(391)	66	1.4%	3.3%
Shipbuilding	0	○	0.00	0	0		-6.0%
Software / Info. Tech.	46	○	0.06	(6)	(15)	-32.6%	16.5%
Telecom Services	95	○	0.34	17.3%	36	37.9%	-2.0%
Transportation & Logistics	3,062	●	2.18	(28)	433	14.1%	4.6%
Total	44,922		1.00	(3,518)	2,023	4.5%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

STANLY COUNTY, NC

Stanly County's three **largest clusters** by employment size are Healthcare (3,100 employees), Retail (2,900), and Culture & Entertainment (1,800).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Retail (10% growth, 300 new jobs), Research (460% growth, 20 new jobs), and Telecom Services (66% growth, 20 new jobs).

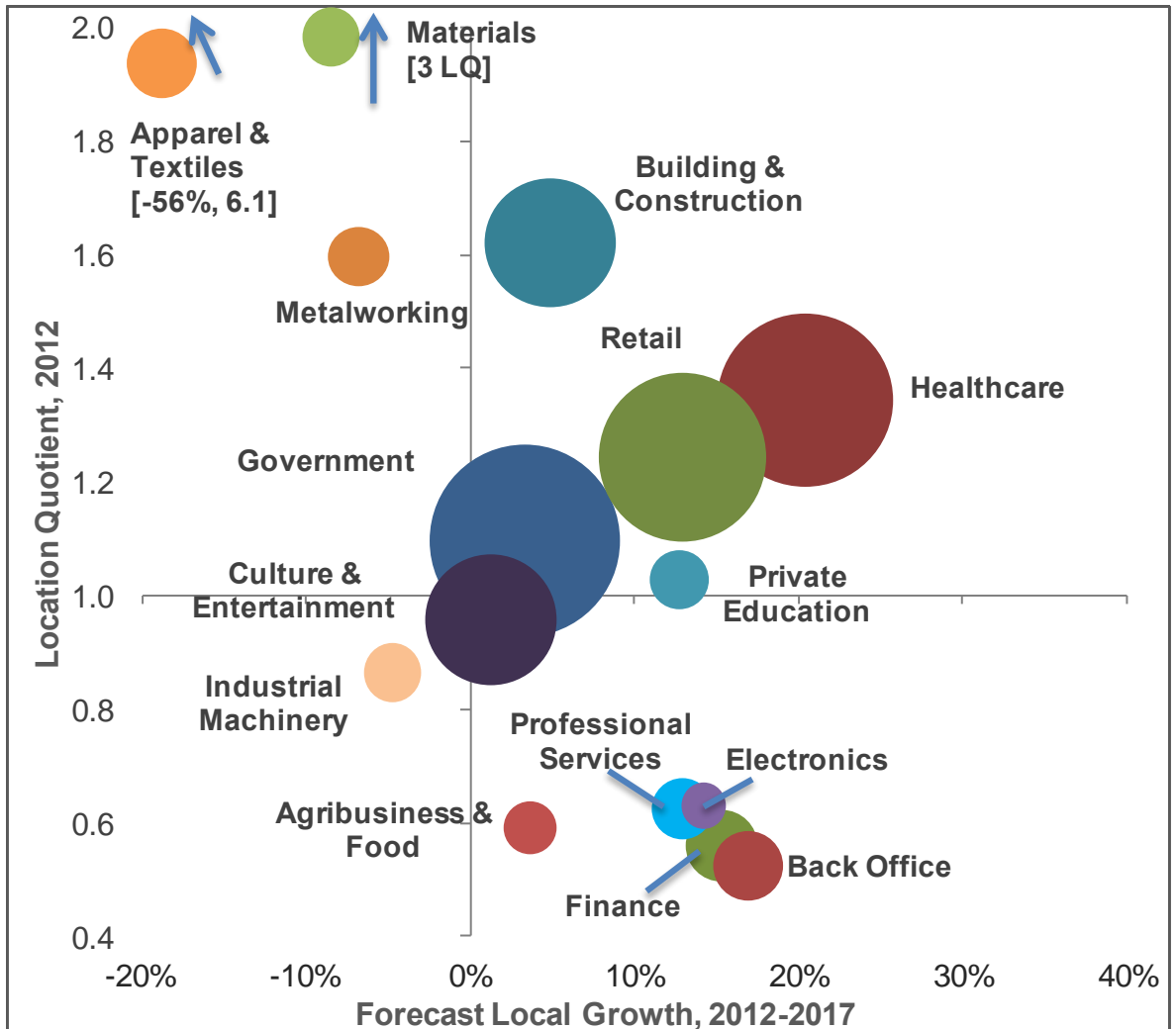
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Automotive (56% forecast growth), Research (40%), and Telecom Services (26%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=6.13), Materials (2.97), and Furniture (2.83). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Research, Consumer Goods Manufacturing, and Telecom Services.

Declining clusters include Apparel & Textiles, which employs 500 workers, has an LQ of 19.68, and lost 65% of its employment base (800 jobs) in the last five years. Metalworking employs 70, LQ=0.96, and lost 81% (300 jobs). Professional Services employs 50, LQ=0.25, and lost 57% (70 jobs).

Industry Clusters: Stanly County, NC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

STANLY COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	38	0.57	8.6%	3	(11)	-28.9%	0.2%
Agribusiness & Food	300	0.59	-5.7%	(18)	11	3.7%	1.9%
Apparel & Textiles	427	6.13	-58.2%	(595)	(240)	-56.2%	-20.1%
Automotive	72	0.52	-59.3%	(105)	40	55.6%	-6.0%
Back Office	514	0.52	-12.4%	(73)	87	16.9%	8.3%
Biomedical Supplies & Labs	45	0.32	7.1%	3	3	6.7%	8.0%
Building & Construction	1,733	1.62	-37.3%	(1,032)	84	4.8%	5.3%
Consumer Goods Mfg	20	0.23	100.0%	10	4	20.0%	-0.6%
Culture & Entertainment	1,790	0.96	-1.3%	(24)	23	1.3%	6.2%
Education	370	1.03	14.9%	48	47	12.7%	13.2%
Electronics	211	0.63	31.9%	51	30	14.2%	1.3%
Energy	97	0.48	-3.0%	(3)	2	2.1%	-1.5%
Engineering, Design, & Content	153	0.33	-22.3%	(44)	19	12.4%	2.0%
Finance	529	0.56	33.6%	133	81	15.3%	3.2%
Furniture	165	2.83	-61.2%	(260)	(112)	-67.9%	-3.5%
Government	3,747	1.10	-2.9%	(112)	123	3.3%	4.0%
Healthcare	3,110	1.35	11.2%	313	635	20.4%	11.8%
Industrial Machinery	341	0.86	-24.4%	(110)	(16)	-4.7%	-1.2%
Logging & Metal/Mineral Mining	44	1.68	-15.4%	(8)	0	0.0%	-2.2%
Materials	684	2.97	-12.5%	(98)	(49)	-7.2%	-7.2%
Metalworking	368	1.60	-20.0%	(92)	(25)	-6.8%	-5.1%
Non-Profits	200	1.09	-1.0%	(2)	41	20.5%	6.3%
Professional Services	393	0.63	15.9%	54	51	13.0%	5.5%
Research	28	0.11	460.0%	23	11	39.3%	21.5%
Retail	2,880	1.24	9.9%	259	371	12.9%	3.3%
Shipbuilding	0	0.00		0	0		-6.0%
Software / Info. Tech.	26	0.08	13.0%	3	6	23.1%	16.5%
Telecom Services	58	0.51	65.7%	23	15	25.9%	-2.0%
Transportation & Logistics	95	0.17	-50.8%	(98)	(7)	-7.4%	4.6%
Total	18,327	1.00	-9.3%	(1,890)	1,201	6.6%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

UNION COUNTY, NC

Union County's three **largest clusters** by employment size are Retail (6,900 employees), Building & Construction (6,700), and Culture & Entertainment (4,500).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Telecom Services (326% growth, 300 new jobs), Research (111% growth, 200 new jobs), and Aerospace (189% growth, 50 new jobs).

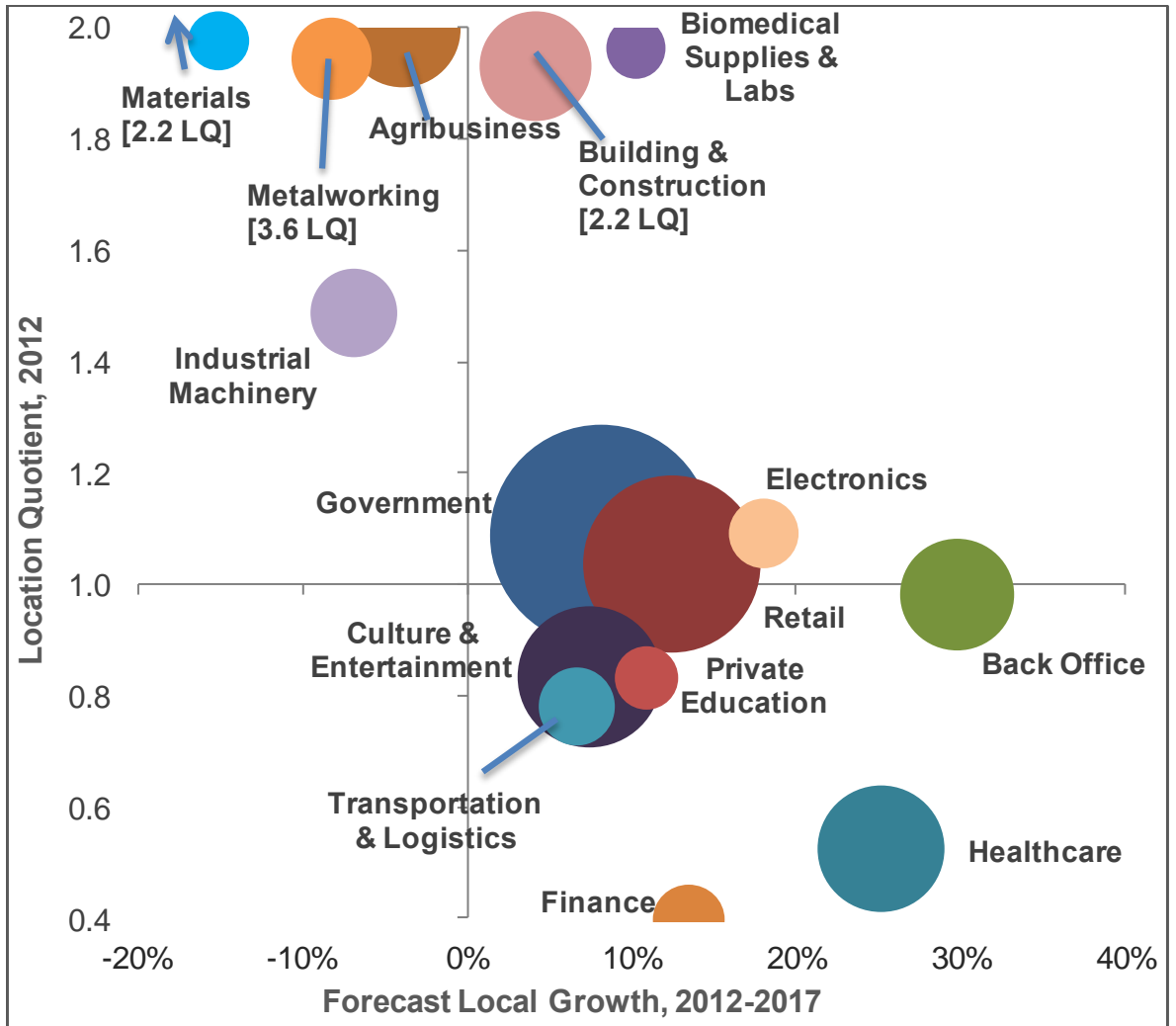
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Automotive (55% forecast growth), Telecom Services (53%), and Non-Profits (45%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Metalworking (LQ=3.59), Apparel & Textiles (2.71), and Building & Construction (2.17). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Research, Aerospace, and Professional Services.

Declining clusters include Building & Construction, which employs 6,700 workers, has an LQ of 2.17, and lost 44% of its employment base (5,300 jobs) in the last five years. Metalworking employs 2,400, LQ=3.59, and lost 21% (600 jobs). Apparel & Textiles employs 500, LQ=2.71, and lost 49% (500 jobs).

Industry Clusters: Union County, NC



Source: Avalanche Consulting using data from EMSI

Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

UNION COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth			
			Growth	New Jobs	New Jobs	Local %	US %	
Aerospace	81	○	0.43	189.3%	53	24	29.6%	0.2%
Agribusiness & Food	2,897	●	2.00	-5.5%	(167)	(114)	-3.9%	1.9%
Apparel & Textiles	540	●	2.71	-49.2%	(523)	(333)	-61.7%	-20.1%
Automotive	222	◐	0.56	13.3%	26	123	55.4%	-6.0%
Back Office	2,750	◐	0.98	-2.3%	(64)	820	29.8%	8.3%
Biomedical Supplies & Labs	791	●	1.96	18.1%	121	81	10.2%	8.0%
Building & Construction	6,646	●	2.17	-44.3%	(5,282)	365	5.5%	5.3%
Consumer Goods Mfg	249	◐	1.00	-16.2%	(48)	(2)	-0.8%	-0.6%
Culture & Entertainment	4,451	◐	0.83	7.3%	303	331	7.4%	6.2%
Education	854	◐	0.83	-14.9%	(149)	93	10.9%	13.2%
Electronics	1,045	◐	1.09	16.2%	146	188	18.0%	1.3%
Energy	400	◐	0.69	-10.3%	(46)	(24)	-6.0%	-1.5%
Engineering, Design, & Content	704	◐	0.53	-29.7%	(298)	44	6.3%	2.0%
Finance	1,077	○	0.40	-17.2%	(224)	145	13.5%	3.2%
Furniture	321	●	1.92	-43.2%	(244)	(81)	-25.2%	-3.5%
Government	10,612	◐	1.09	2.4%	251	869	8.2%	4.0%
Healthcare	3,463	◐	0.52	9.2%	293	871	25.2%	11.8%
Industrial Machinery	1,678	●	1.49	-19.5%	(407)	(116)	-6.9%	-1.2%
Logging & Metal/Mineral Mining	61	◐	0.82	-6.2%	(4)	2	3.3%	-2.2%
Materials	1,417	●	2.15	-14.3%	(236)	(139)	-9.8%	-7.2%
Metalworking	2,363	●	3.59	-21.2%	(636)	(43)	-1.8%	-5.1%
Non-Profits	76	○	0.14	8.6%	6	34	44.7%	6.3%
Professional Services	597	○	0.33	9.5%	52	38	6.4%	5.5%
Research	295	○	0.41	110.7%	155	116	39.3%	21.5%
Retail	6,866	◐	1.04	5.4%	349	852	12.4%	3.3%
Shipbuilding	0	○	0.00		0	0		-6.0%
Software / Info. Tech.	333	○	0.38	11.0%	33	46	13.8%	16.5%
Telecom Services	375	●	1.14	326.1%	287	197	52.5%	-2.0%
Transportation & Logistics	1,281	◐	0.78	1.9%	24	85	6.6%	4.6%
Total	52,376		1.00	-11.2%	(6,602)	4,456	8.5%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

CHESTER COUNTY, SC

Chester County's three **largest clusters** by employment size are Building & Construction (1,330 employees), Retail (990), and Culture & Entertainment (670).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Transportation & Logistics (62% growth, 140 new jobs), Agribusiness & Food (11% growth, 40 new jobs), and Engineering, Design, and Content (39% growth, 20 new jobs).

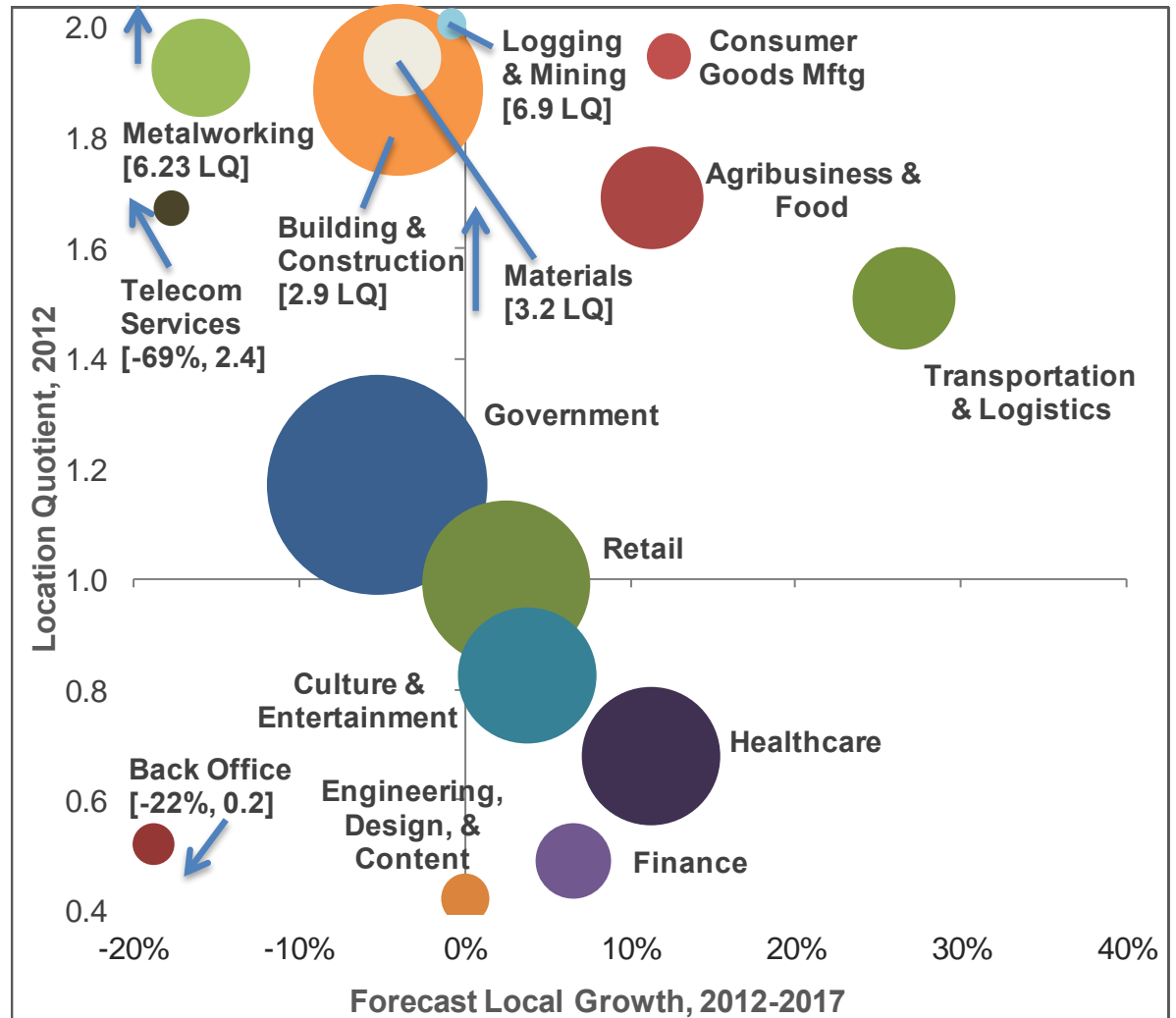
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Research (47% forecast growth), Transportation & Logistics (27%), and Non-Profits (25%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Logging & Metal/Mineral Mining (LQ=6.93), Metalworking (6.23), and Materials (3.17). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Energy, Non-Profits, and Shipbuilding.

Declining clusters include Building & Construction, which employs 1,300 workers, has an LQ of 2.89, and lost 30% of its employment base (570 jobs) in the last five years. Apparel & Textiles employs 50, LQ=1.50, and lost 91% (460 jobs). Metalworking employs 600, LQ=6.23, and lost 33% (300 jobs).

Industry Clusters: Chester County, SC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

CHESTER COUNTY, SC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	0	○	0.00		0	0	0.2%
Agribusiness & Food	370	●	1.69	10.8%	36	42	11.4%
Apparel & Textiles	45	●	1.50	-91.0%	(455)	(40)	-88.9%
Automotive	0	○	0.00		0	0	-6.0%
Back Office	72	○	0.17	-74.4%	(209)	(16)	-22.2%
Biomedical Supplies & Labs	0	○	0.00	-100.0%	(5)	0	8.0%
Building & Construction	1,331	●	2.89	-30.1%	(572)	(52)	-3.9%
Consumer Goods Mftg	73	●	1.95	-2.7%	(2)	9	12.3%
Culture & Entertainment	665	●	0.83	-7.5%	(54)	25	3.8%
Education	5	○	0.03	0.0%	0	0	0.0%
Electronics	44	○	0.30	-78.6%	(162)	(6)	-13.6%
Energy	27	○	0.31	170.0%	17	(22)	-81.5%
Engineering, Design, & Content	85	○	0.42	39.3%	24	0	0.0%
Finance	199	○	0.49	-2.0%	(4)	13	6.5%
Furniture	0	○	0.00		0	0	-3.5%
Government	1,722	●	1.17	-12.6%	(249)	(92)	-5.3%
Healthcare	675	●	0.68	-2.9%	(20)	76	11.3%
Industrial Machinery	65	○	0.38	-54.9%	(79)	(6)	-9.2%
Logging & Metal/Mineral Mining	78	●	6.93	36.8%	21	0	0.0%
Materials	315	●	3.17	2.9%	9	(10)	-3.2%
Metalworking	619	●	6.23	-33.4%	(310)	(76)	-12.3%
Non-Profits	24	○	0.30	140.0%	14	6	25.0%
Professional Services	59	○	0.22	-25.3%	(20)	8	13.6%
Research	15	○	0.14	25.0%	3	7	46.7%
Retail	991	●	0.99	-4.8%	(50)	25	2.5%
Shipbuilding	11	●	1.48	120.0%	6	(6)	-54.5%
Software / Info. Tech.	10	○	0.07	-65.5%	(19)	0	0.0%
Telecom Services	118	●	2.38	7.3%	8	(81)	-68.6%
Transportation & Logistics	373	●	1.51	62.2%	143	99	26.5%
Total	7,900	1.00		-19.8%	(1,948)	(102)	-1.3%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

Chesterfield County's three **largest clusters** by employment size are Metalworking (2,300 employees), Retail (1,600 employees), and Healthcare (1,300 employees).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Retail (13% growth, 180 new jobs), Furniture (1060% growth, 50 new jobs), and Aerospace (growth from zero jobs, 130 new jobs).

The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Furniture (95% forecast growth), Aerospace (49%), and Telecom Services (32%). *[Note: Forecasts from EconomicModeling.com]*

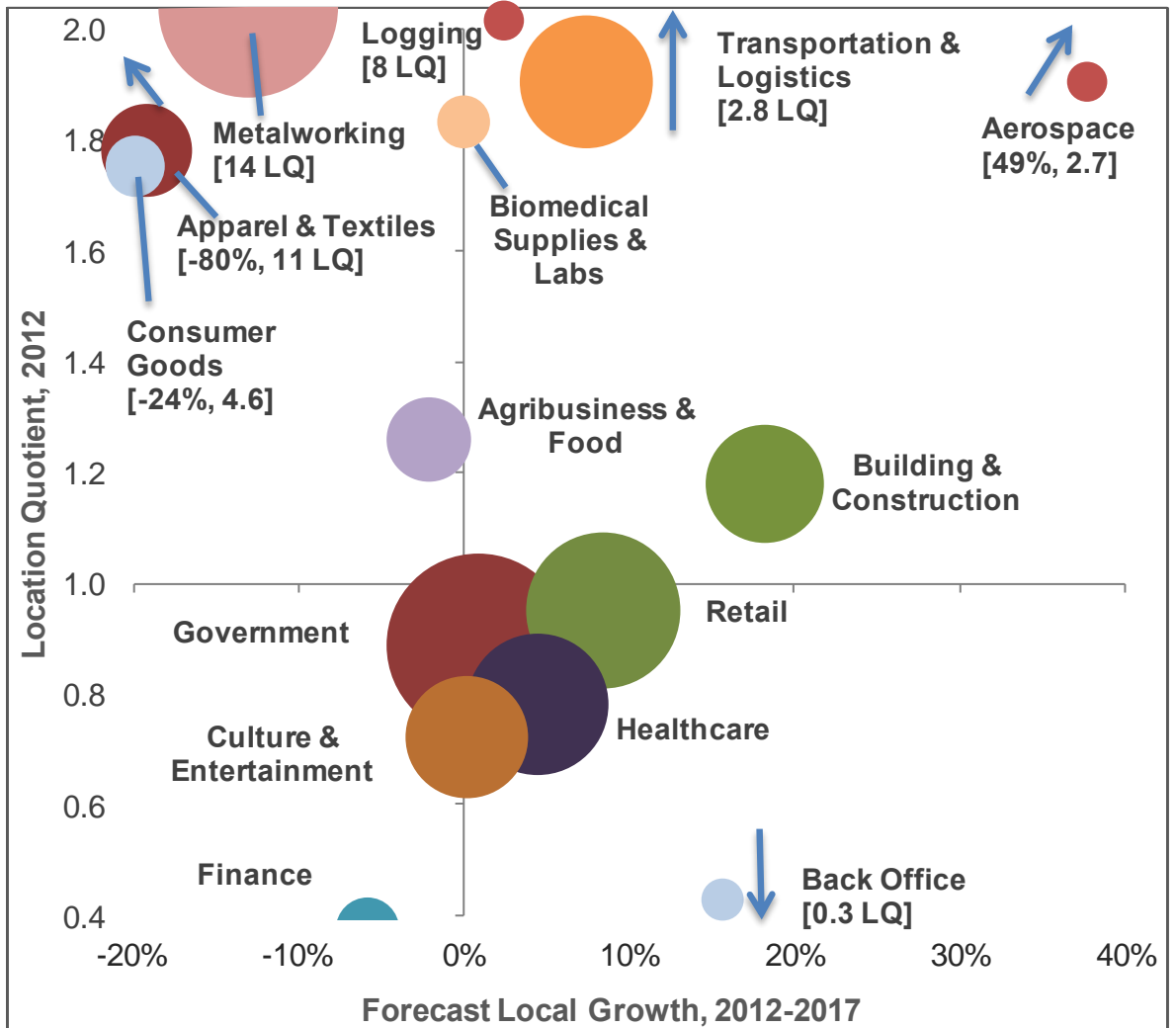
The county's **clusters with the highest concentration** (highest Location Quotient) are Metalworking (LQ=13.59), Apparel & Textiles (10.96), and Logging and Metal/Mineral Mining (7.95). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Furniture, Non-Profits, and Software/Info. Tech.

Declining clusters include Apparel & Textiles, which employs 600 workers, has an LQ of 10.96, and lost 53% of its employment base (600 jobs) in the last five years. Metalworking employs 2,300, LQ=13.59, and lost 14% (400 jobs). Consumer Goods Manufacturing employs 300, LQ=4.59, and lost 39% (200 jobs).

CHESTERFIELD COUNTY, SC

Industry Clusters: Chesterfield County, SC



Source: Avalanche Consulting using data from EMSI

Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

CHESTERFIELD COUNTY, SC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth			
			Growth	New Jobs	New Jobs	Local %	US %	
Aerospace	132	●	2.73		132	65	49.2%	0.2%
Agribusiness & Food	465	●	1.26	9.7%	41	(10)	-2.2%	1.9%
Apparel & Textiles	555	●	10.96	-53.4%	(637)	(445)	-80.2%	-20.1%
Automotive	33	○	0.33	13.8%	4	10	30.3%	-6.0%
Back Office	198	○	0.28	0.5%	1	36	18.2%	8.3%
Biomedical Supplies & Labs	188	●	1.83	27.9%	41	0	0.0%	8.0%
Building & Construction	917	●	1.18	-11.7%	(121)	167	18.2%	5.3%
Consumer Goods Mftg	290	●	4.59	-38.6%	(182)	(69)	-23.8%	-0.6%
Culture & Entertainment	979	●	0.72	-7.7%	(82)	2	0.2%	6.2%
Education	0	○	0.00	-100.0%	(5)	0		13.2%
Electronics	70	○	0.29	-32.0%	(33)	6	8.6%	1.3%
Energy	82	●	0.56	-1.2%	(1)	(1)	-1.2%	-1.5%
Engineering, Design, & Content	46	○	0.13	35.3%	12	(8)	-17.4%	2.0%
Finance	257	○	0.37	-17.1%	(53)	(15)	-5.8%	3.2%
Furniture	58	●	1.37	1060.0%	53	55	94.8%	-3.5%
Government	2,208	●	0.89	-4.8%	(111)	19	0.9%	4.0%
Healthcare	1,314	●	0.78	-0.3%	(4)	59	4.5%	11.8%
Industrial Machinery	110	○	0.38	-14.7%	(19)	(3)	-2.7%	-1.2%
Logging & Metal/Mineral Mining	151	●	7.95	-10.1%	(17)	2	1.3%	-2.2%
Materials	73	○	0.44	-53.8%	(85)	(12)	-16.4%	-7.2%
Metalworking	2,277	●	13.59	-14.2%	(376)	(223)	-9.8%	-5.1%
Non-Profits	69	●	0.52	35.3%	18	(1)	-1.4%	6.3%
Professional Services	117	○	0.26	15.8%	16	(7)	-6.0%	5.5%
Research	5	○	0.03	0.0%	0	0	0.0%	21.5%
Retail	1,601	●	0.95	12.6%	179	135	8.4%	3.3%
Shipbuilding	0	○	0.00		0	0		-6.0%
Software / Info. Tech.	10	○	0.04	100.0%	5	0	0.0%	16.5%
Telecom Services	66	●	0.79	17.9%	10	21	31.8%	-2.0%
Transportation & Logistics	1,148	●	2.75	0.1%	1	112	9.8%	4.6%
Total	13,323		1.00	-8.5%	(1,244)	(128)	-1.0%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

LANCASTER COUNTY, SC

Lancaster County's three **largest clusters** by employment size are Healthcare (2,600 employees), Retail (2,000), and Culture & Entertainment (1,100).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Research (2668% growth, 700 new jobs), Agribusiness & Food (201% growth, 150 new jobs), and Automotive (760% growth, 40 new jobs).

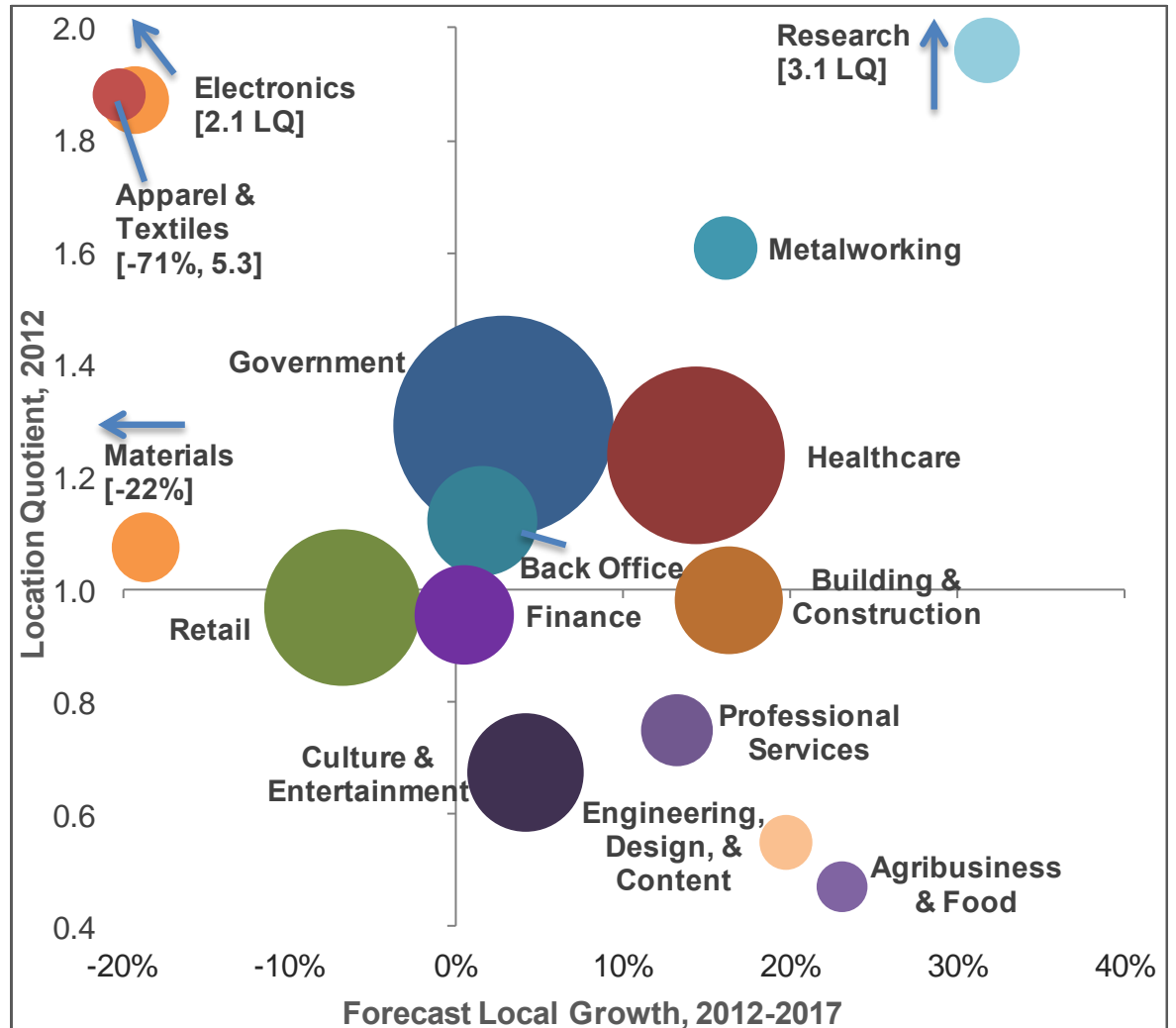
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Education (47% forecast growth), Furniture (45%), and Research (34%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=5.30), Research (3.07), and Electronics (2.10). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Biomedical Supplies & Labs, Agribusiness & Food, and Automotive.

Declining clusters include Apparel & Textiles, which employs 340 workers, has an LQ of 5.3, and lost 81% of its employment base (1,400 jobs) in the last five years. Building & Construction employs 1,000, LQ=0.98, and lost 33% (500 jobs). Finance employs 800, LQ=0.96, and lost 27% (300 jobs).

Industry Clusters: Lancaster County, SC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

LANCASTER COUNTY, NC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	0	○	0.00	0	0		0.2%
Agribusiness & Food	217	○	0.47	145	50	23.0%	1.9%
Apparel & Textiles	335	●	5.30	(1,381)	(239)	-71.3%	-20.1%
Automotive	43	○	0.34	38	12	27.9%	-6.0%
Back Office	997	◐	1.12	246	15	1.5%	8.3%
Biomedical Supplies & Labs	31	○	0.24	21	9	29.0%	8.0%
Building & Construction	952	◑	0.98	(468)	155	16.3%	5.3%
Consumer Goods Mftg	131	◑	1.66	(24)	11	8.4%	-0.6%
Culture & Entertainment	1,142	◑	0.67	(103)	47	4.1%	6.2%
Education	15	○	0.05	(14)	7	46.7%	13.2%
Electronics	638	●	2.10	(82)	(118)	-18.5%	1.3%
Energy	126	◑	0.69	16	(64)	-50.8%	-1.5%
Engineering, Design, & Content	234	◑	0.55	31	46	19.7%	2.0%
Finance	819	◑	0.96	(303)	4	0.5%	3.2%
Furniture	40	◑	0.76	(25)	18	45.0%	-3.5%
Government	4,006	◑	1.29	128	112	2.8%	4.0%
Healthcare	2,595	◑	1.24	735	371	14.3%	11.8%
Industrial Machinery	185	◑	0.52	33	(32)	-17.3%	-1.2%
Logging & Metal/Mineral Mining	28	◑	1.18	(20)	(13)	-46.4%	-2.2%
Materials	219	◑	1.05	111	(48)	-21.9%	-7.2%
Metalworking	336	◑	1.61	8	54	16.1%	-5.1%
Non-Profits	40	○	0.24	7	12	30.0%	6.3%
Professional Services	426	◑	0.75	8	56	13.1%	5.5%
Research	692	●	3.07	667	236	34.1%	21.5%
Retail	2,032	◑	0.97	(184)	(139)	-6.8%	3.3%
Shipbuilding	0	○	0.00	0	0		-6.0%
Software / Info. Tech.	96	○	0.34	61	26	27.1%	16.5%
Telecom Services	88	◑	0.84	(60)	10	11.4%	-2.0%
Transportation & Logistics	216	○	0.41	(2)	(33)	-15.3%	4.6%
Total	16,621		1.00	(388)	524	3.2%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

UNION COUNTY, SC

Union County's three **largest clusters** by employment size are Retail (1,000 employees), Culture & Entertainment (600), and Apparel & Textiles (500).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Automotive (1200% growth, 100 new jobs), Retail (8% growth, 70 new jobs), and Healthcare (12% growth, 40 new jobs).

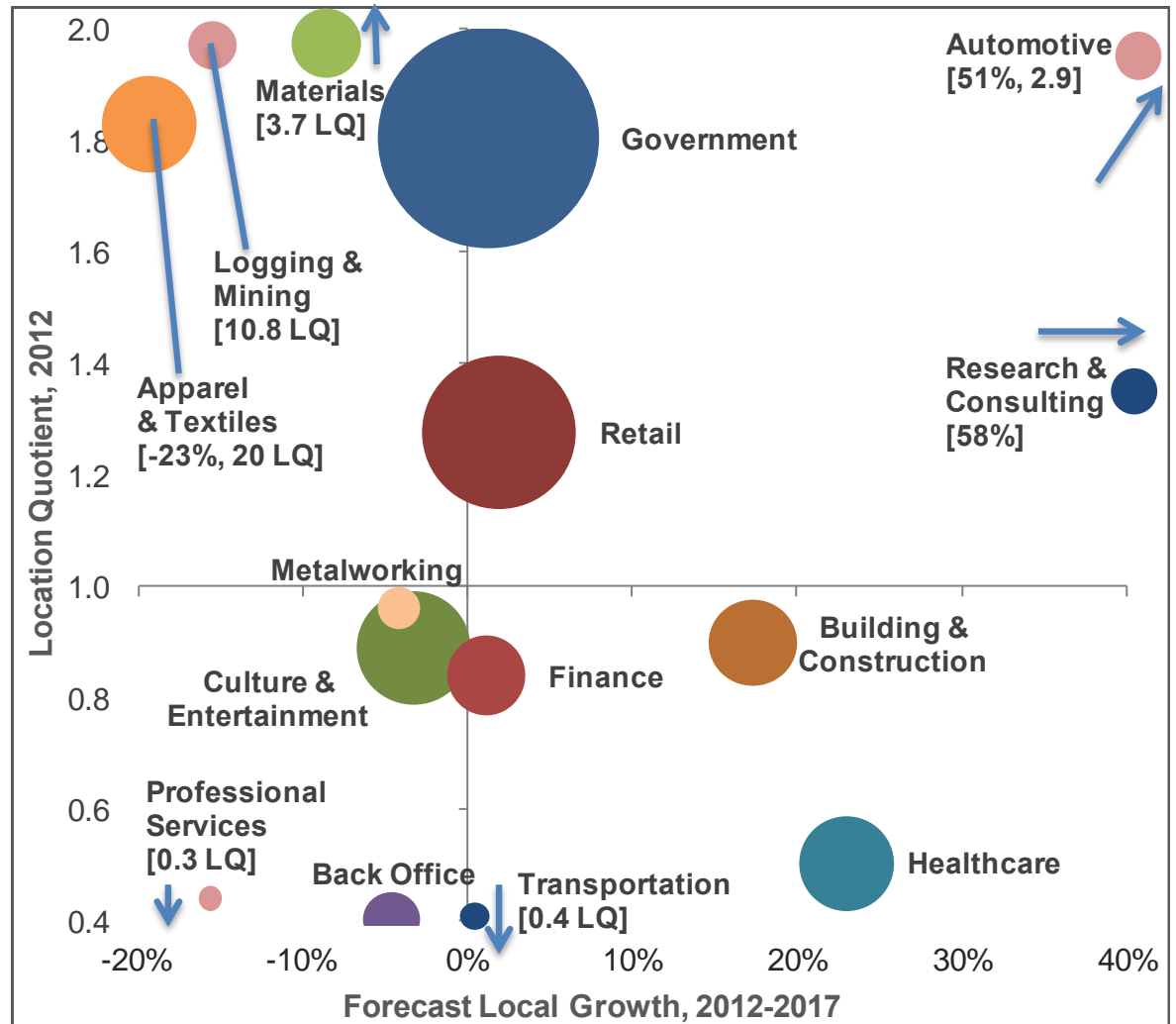
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Research (58% forecast growth), Automotive (51%), and Industrial Machinery (33%). *[Note: Forecasts from EconomicModeling.com]*

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=19.68), Logging & Metal/Mineral Mining (10.80), and Materials (3.73). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Industrial Machinery, Healthcare, and Non-Profits.

Declining clusters include Apparel & Textiles, which employs 500 workers, has an LQ of 19.68, and lost 65% of its employment base (800 jobs) in the last five years. Metalworking employs 70, LQ=0.96, and lost 81% (300 jobs). Professional Services employs 50, LQ=0.25, and lost 57% (70 jobs).

Industry Clusters: Union County, SC



Source: Avalanche Consulting using data from EMSI

Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

UNION COUNTY, SC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	0	○	0.00		0	0	0.2%
Agribusiness & Food	15	○	0.09	0.0%	0	0	1.9%
Apparel & Textiles	452	●	19.68	-64.6%	(824)	(103)	-22.8%
Automotive	130	●	2.85	1200.0%	120	66	-6.0%
Back Office	130	○	0.40	-29.0%	(53)	(6)	8.3%
Biomedical Supplies & Labs	0	○	0.00		0	0	8.0%
Building & Construction	317	◐	0.90	-11.7%	(42)	55	5.3%
Consumer Goods Mftg	5	○	0.17		5	0	-0.6%
Culture & Entertainment	548	◐	0.89	-8.8%	(53)	(18)	6.2%
Education	15	○	0.13	-55.9%	(19)	0	13.2%
Electronics	5	○	0.05	0.0%	0	0	1.3%
Energy	19	○	0.29	0.0%	0	(14)	-1.5%
Engineering, Design, & Content	39	○	0.25	-33.9%	(20)	4	2.0%
Finance	262	◐	0.84	-7.7%	(22)	3	3.2%
Furniture	39	●	2.03	-26.4%	(14)	1	-3.5%
Government	2,033	●	1.80	-5.1%	(110)	26	4.0%
Healthcare	382	◐	0.50	12.4%	42	88	11.8%
Industrial Machinery	24	○	0.18	20.0%	4	8	-1.2%
Logging & Metal/Mineral Mining	93	●	10.80	-17.7%	(20)	(13)	-2.2%
Materials	283	●	3.73	0.4%	1	(20)	-7.2%
Metalworking	73	◐	0.96	-80.6%	(303)	(3)	-5.1%
Non-Profits	49	◐	0.81	28.9%	11	(4)	6.3%
Professional Services	51	○	0.25	-56.8%	(67)	(7)	5.5%
Research	110	●	1.34	-23.1%	(33)	64	21.5%
Retail	975	●	1.28	7.9%	71	19	3.3%
Shipbuilding	0	○	0.00		0	0	-6.0%
Software / Info. Tech.	5	○	0.05	0.0%	0	0	16.5%
Telecom Services	13	○	0.34	-18.8%	(3)	3	-2.0%
Transportation & Logistics	68	○	0.36	-9.3%	(7)	1	4.6%
Total	6,043		1.00	-18.3%	(1,357)	132	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

YORK COUNTY, SC

York County's three **largest clusters** by employment size are Retail (11,100 employees), Culture & Entertainment (8,800), and Healthcare (8,000).

The county's three **fastest growing clusters of the past five years** (2007 to 2012) were Retail (22%, 2,000 new jobs), Finance (20% growth, 1,100 new jobs), and Healthcare (12% growth, 800 new jobs).

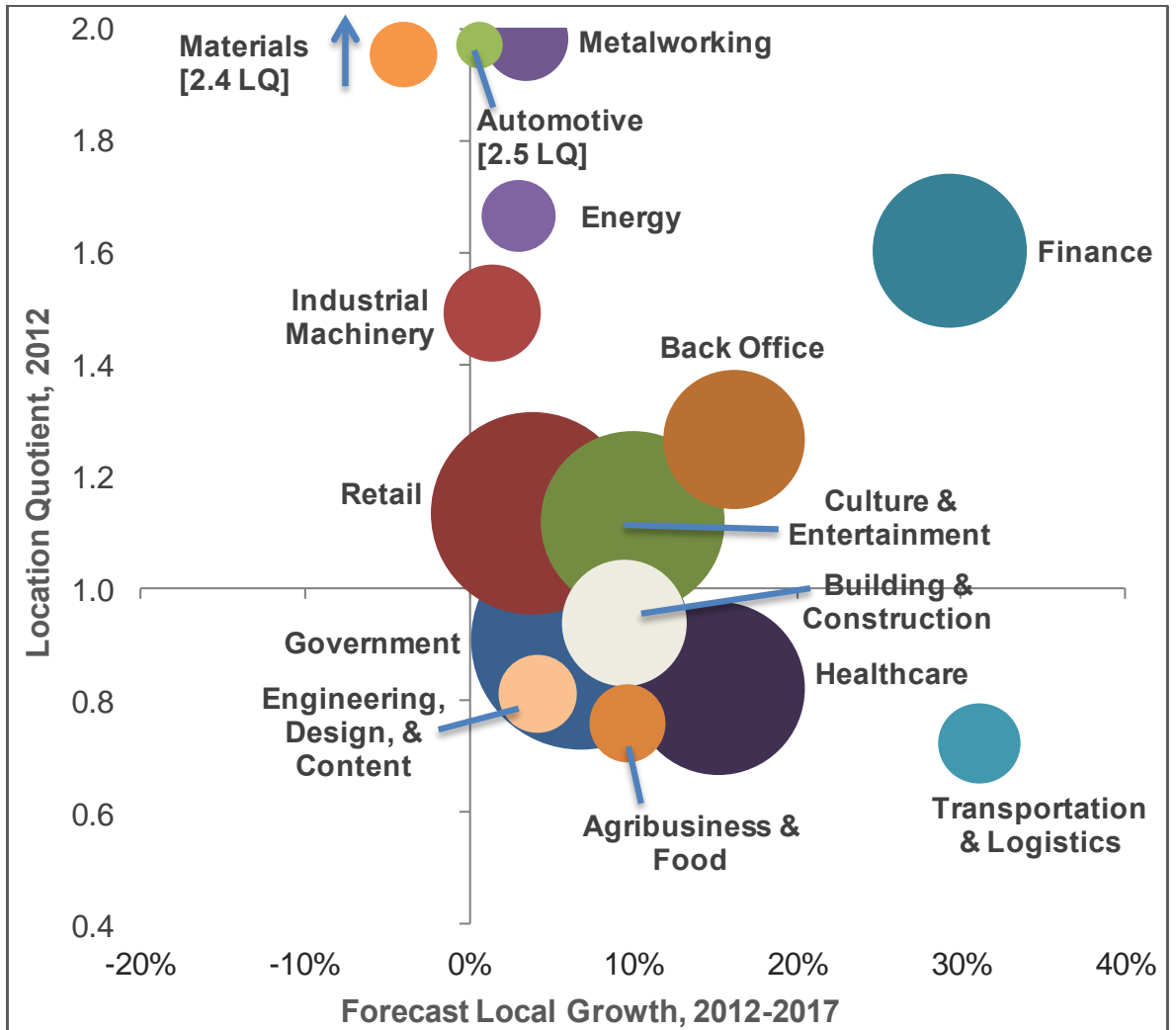
The three **fastest forecasted growth clusters** (2012 to 2017) for the county are: Telecom Services (35% forecast growth), Research (34%), and Transportation and Logistics (31%).
[Note: Forecasts from EconomicModeling.com]

The county's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=3.59), Automotive (2.45), and Materials (2.43). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Research, Private Education, and Electronics.

Declining clusters include Building & Construction, which employs 4,200 workers, has an LQ of 0.94, and lost 32% of its employment base (2,000 jobs) in the last five years. Automotive employs 1,400, LQ=2.45, and lost 19% (300 jobs). Biomedical Supplies & Labs employs 400, LQ=0.66, and lost 41% (300 jobs).

Industry Clusters: York County, SC



Source: Avalanche Consulting using data from EMSI Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

YORK COUNTY, SC

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth		
			Growth	New Jobs	New Jobs	Local %	US %
Aerospace	5	0.02		5	0	0.0%	0.2%
Agribusiness & Food	1,623	0.76	26.1%	336	157	9.7%	1.9%
Apparel & Textiles	1,054	3.59	-9.8%	(115)	(150)	-14.2%	-20.1%
Automotive	1,425	2.45	-18.8%	(330)	33	2.3%	-6.0%
Back Office	5,234	1.27	3.1%	157	848	16.2%	8.3%
Biomedical Supplies & Labs	390	0.66	-40.7%	(268)	16	4.1%	8.0%
Building & Construction	4,231	0.94	-31.7%	(1,960)	401	9.5%	5.3%
Consumer Goods Mftg	451	1.23	55.5%	161	(55)	-12.2%	-0.6%
Culture & Entertainment	8,820	1.12	1.3%	117	881	10.0%	6.2%
Education	268	0.18	22.4%	49	27	10.1%	13.2%
Electronics	1,053	0.75	36.6%	282	(107)	-10.2%	1.3%
Energy	1,417	1.66	6.7%	89	43	3.0%	-1.5%
Engineering, Design, & Content	1,608	0.81	-0.9%	(15)	67	4.2%	2.0%
Finance	6,384	1.60	19.7%	1,051	1,875	29.4%	3.2%
Furniture	115	0.47	-48.0%	(106)	14	12.2%	-3.5%
Government	13,067	0.91	7.4%	898	893	6.8%	4.0%
Healthcare	8,000	0.82	11.6%	832	1,218	15.2%	11.8%
Industrial Machinery	2,480	1.49	11.3%	251	35	1.4%	-1.2%
Logging & Metal/Mineral Mining	64	0.58	-56.2%	(82)	(10)	-15.6%	-2.2%
Materials	2,360	2.43	-8.1%	(209)	(79)	-3.3%	-7.2%
Metalworking	1,923	1.98	-1.0%	(19)	67	3.5%	-5.1%
Non-Profits	207	0.27	-9.6%	(22)	9	4.3%	6.3%
Professional Services	963	0.36	-5.5%	(56)	44	4.6%	5.5%
Research	266	0.25	31.0%	63	91	34.2%	21.5%
Retail	11,077	1.13	21.7%	1,978	426	3.8%	3.3%
Shipbuilding	0	0.00		0	0		-6.0%
Software / Info. Tech.	270	0.21	-0.4%	(1)	18	6.7%	16.5%
Telecom Services	770	1.59	-0.1%	(1)	270	35.1%	-2.0%
Transportation & Logistics	1,749	0.72	-4.8%	(88)	545	31.2%	4.6%
Total	77,222	1.00	3.9%	2,878	7,549	9.8%	5.2%

Source: Avalanche Consulting using data from EMSI

Private Sector Industry Clusters

CENTRALINA REGION

The Centralina Region's three **largest clusters** by employment size are Retail (110,400 employees), Culture & Entertainment (100,000), and Healthcare (81,800).

The region's three **fastest growing clusters of the past five years** (2007 to 2012) were Healthcare (13% growth, 9,300 new jobs), Culture & Entertainment (9%, 8,000 new jobs), and Research (26% growth, 2,700 new jobs).

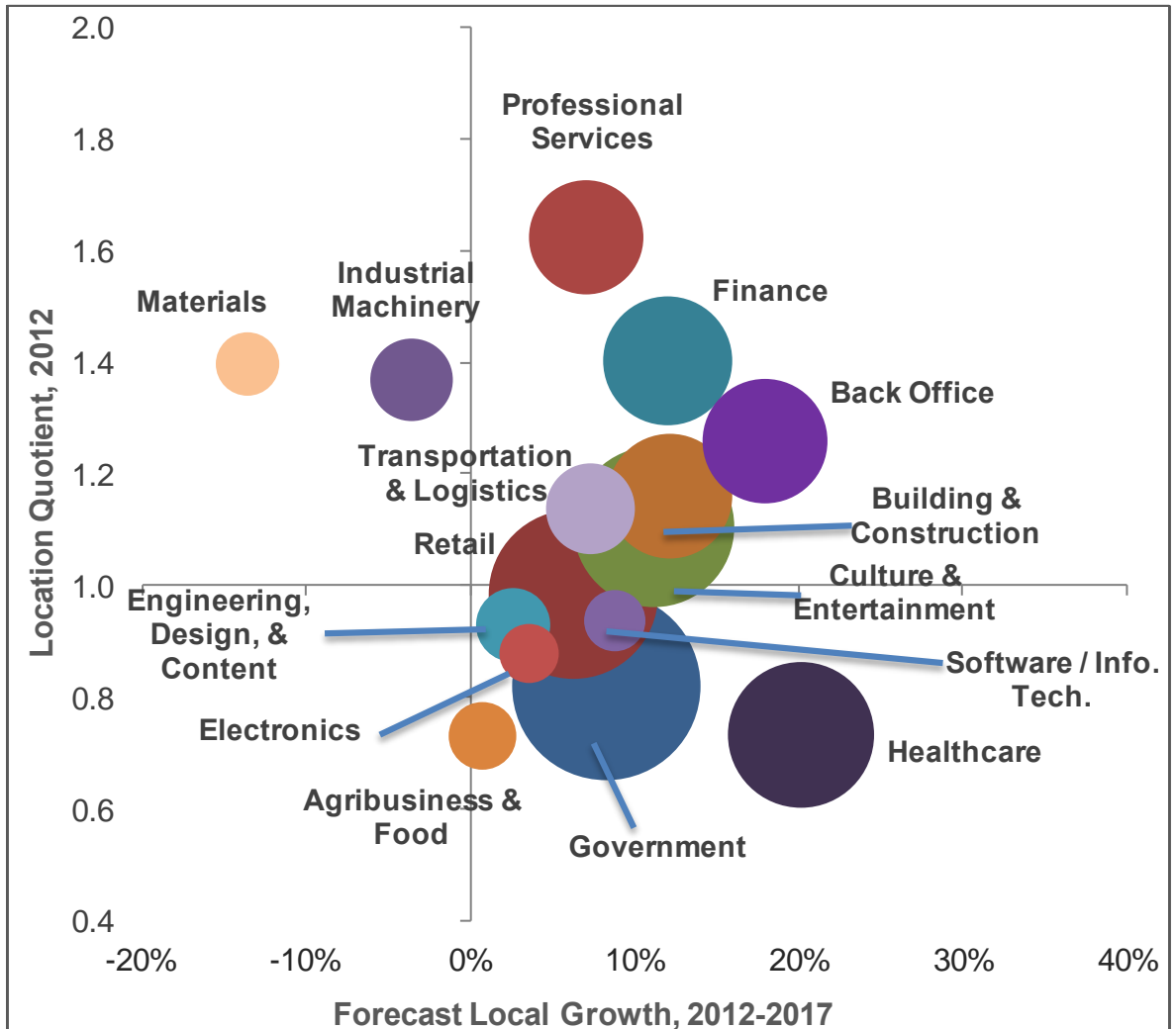
The three **fastest forecasted growth clusters** (2012 to 2017) for the region are: Research (36% forecast growth), Healthcare (20%), and Biomedical Supplies and Labs (19%). *[Note: Forecasts from EconomicModeling.com]*

The region's **clusters with the highest concentration** (highest Location Quotient) are Apparel & Textiles (LQ=2.41), Professional Services (1.63), and Automotive (1.48). These clusters represent the areas of greatest specialization and competitiveness for the county.

Small, **emerging clusters** – those with a low LQ but high growth rates – include Aerospace, Private Education, and Software/Info. Tech.

Declining clusters include Building & Construction, which employs 60,100 workers, has an LQ of 1.16, and lost 33% of its employment base (29,100 jobs) in the last five years. Apparel & Textiles employs 8,100, LQ=2.41, and lost 41% (5,700 jobs). Retail employs 110,400, LQ=0.986, and lost 5% (5,300 jobs).

Industry Clusters: Centralina Region



Source: Avalanche Consulting using data from EMSI

Note: Largest 15 by Employment Size (Bubble Size)

Industry Cluster Competitiveness

CENTRALINA REGION

Cluster	2012 Employment	2012 LQ	2007-2012 Job Creation		Forecast, '12-'17 Growth			
			Growth	New Jobs	New Jobs	Local %	US %	
Aerospace	325	○	0.10	22.6%	60	5	1.5%	0.2%
Agribusiness & Food	17,927	◐	0.73	-15.3%	(3,236)	128	0.7%	1.9%
Apparel & Textiles	8,106	●	2.41	-41.2%	(5,689)	(2,317)	-28.6%	-20.1%
Automotive	9,923	◐	1.48	-21.3%	(2,681)	509	5.1%	-6.0%
Back Office	59,751	◐	1.26	-1.6%	(976)	10,772	18.0%	8.3%
Biomedical Supplies & Labs	4,474	◐	0.66	16.6%	638	842	18.8%	8.0%
Building & Construction	60,082	◐	1.16	-32.6%	(29,084)	7,319	12.2%	5.3%
Consumer Goods Mftg	3,715	◐	0.88	-19.6%	(907)	27	0.7%	-0.6%
Culture & Entertainment	99,746	◐	1.10	8.7%	7,953	11,217	11.2%	6.2%
Education	13,485	◐	0.78	22.8%	2,508	1,740	12.9%	13.2%
Electronics	14,233	◐	0.88	-3.8%	(569)	512	3.6%	1.3%
Energy	4,499	○	0.46	-13.8%	(722)	(631)	-14.0%	-1.5%
Engineering, Design, & Content	21,044	◐	0.93	-17.3%	(4,417)	550	2.6%	2.0%
Finance	64,172	◐	1.40	-7.4%	(5,146)	7,738	12.1%	3.2%
Furniture	3,803	◐	1.35	-36.7%	(2,205)	(17)	-0.4%	-3.5%
Government	135,344	◐	0.82	5.6%	7,127	11,277	8.3%	4.0%
Healthcare	81,770	◐	0.73	12.8%	9,264	16,506	20.2%	11.8%
Industrial Machinery	26,110	◐	1.37	-8.9%	(2,562)	(946)	-3.6%	-1.2%
Logging & Metal/Mineral Mining	784	◐	0.62	-32.0%	(369)	(24)	-3.1%	-2.2%
Materials	15,544	◐	1.40	-16.7%	(3,108)	(2,107)	-13.6%	-7.2%
Metalworking	12,837	◐	1.15	-19.4%	(3,094)	(85)	-0.7%	-5.1%
Non-Profits	4,496	◐	0.51	-41.2%	(3,144)	455	10.1%	6.3%
Professional Services	49,394	◐	1.63	6.3%	2,913	3,501	7.1%	5.5%
Research	13,274	◐	1.10	25.6%	2,703	4,706	35.5%	21.5%
Retail	110,354	◐	0.98	-4.6%	(5,303)	6,912	6.3%	3.3%
Shipbuilding	5	○	0.01	0.0%	0	0	0.0%	-6.0%
Software / Info. Tech.	14,075	◐	0.94	7.5%	984	1,237	8.8%	16.5%
Telecom Services	5,857	◐	1.05	-1.3%	(78)	(248)	-4.2%	-2.0%
Transportation & Logistics	31,585	◐	1.14	-11.9%	(4,286)	2,318	7.3%	4.6%
Total	886,699		1.00	-5.1%	(47,463)	81,885	9.2%	5.2%

Source: Avalanche Consulting using data from EMSI